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WATER-USE LAW IN ILLINOIS

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WATER-USE LAW IN ILLINOIS

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The use of Illinois water resources for agricultural, industrial, municipal, and recreational purposes is rapidly increasing. As these resources become economically more important, the legal structure governing rights and responsibilities in utilizing and developing the state's water resources becomes more complex.

Additional legislation may be needed to conserve water and encourage its most effective use, and sound legislation can best come from an informed public. In order to promote better understanding of water-use law in Illinois, the Illinois Agricultural Experiment Station and the Resource Development Economics Division, Economic Research Service, U. S. Department of Agriculture, undertook the study reported here by authors Fred L. Mann, Harold H. Ellis, and N. G. P. Krausz.

Mr. Mann conducted research for the project and prepared most of the first draft of the manuscript. Mr. Ellis reviewed the manuscript in detail and substantially revised and enlarged it. Mr. Krausz also reviewed and revised the manuscript and handled publication details.

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WATER IS ONE OF ILLINOIS' MOST IMPORTANT NATURAL resources and serves many vital needs. In a report to the United States Senate's Select Committee on National Water Resources in 1959, the Governor of Illinois noted that precipitation in the form of rain or snow:

. . . yields an average of 99 billion gallons per day for the State. Evaporation and transpiration from growing plants consume and return to the atmosphere about 76 billion gallons per day; the remaining available amount, when added to the minimum flow of record on the State's bordering streams of the Mississippi and Ohio, and diversion from Lake Michigan, brings the grand total mean daily surface and ground water supplies available to Illinois to 43 billion gallons per day.[1] Unfortunately, this water is not uniformly available, either in place, in time, or in quantity. Illinois is peculiarly located geographically and geologically so far as water is concerned. Variations of the water resources are in part due to the great north-south dimension . . . 385 miles of latitude. . . .[2] In addition to the seasonal and day-to-day changes, Illinois has experienced occasional extended periods of excess or drought. This has emphasized the fact that . . . there is sufficient water in Illinois to supply all present needs if it were transported to or located at the points of use. It further emphasizes, however, that regardless of the fact that there is an abundance of water in the rivers and underground supplies of the State, and in Lake Michigan, accessibility and distribution constitutes the major problem in the use of available water resources.

The Governor pointed to the need for increased and more comprehensive study and compilation of data on the potential quantity and quality of available water. He also said:

Paralleling the problems of water resources are those of administration, and control of the uses of such resources. Illinois recognizes the concept of multipurpose use of her water resources and that these uses must include transportation, power generation, industrial (both for processing and cooling), agricultural, recreational, a source of protein food (fish), domestic water supply, and also that its streams must serve as a means for receiving, absorbing, and transporting the spent water supply, or wastes both industrial and municipal. The present and especially the future problem will be the keeping of such multipurpose uses in relative balance, recognizing that for the health and economy of the State there can be no overuse for any one of the multipurpose uses.

The Governor also said that the prevention, abatement, and control of pollution of both underground and surface water sources would continue to receive important attention by the state government. He noted that three-fourths of the remaining 5 percent of the Illinois population not yet served with treatment plants was along interstate waters, making interstate

[1] The Governor was relying on a 1958 state governmental report for these figures. This report asserted that the 43 billion gallons per day of available water was five times the present state usage. See ATLAS OF ILLINOIS RESOURCES §1, p. 1, *Water Resources and Climate* (prepared by William C. Ackermann, Chief, Ill. State Water Survey Div.) Ill. Dept. Registration and Education, Div. of Industrial Planning and Development. Part of the flow of the Ohio River comes from a third bordering stream, the Wabash River.

[2] The 1958 report cited in note 1 stated that precipitation varies from about 46 in. per year in the Shawnee Hills of southern Illinois to 32 in. in the vicinity of Lake Michigan.

water problems important in this connection. He added that the obtaining of water temperature data is of great importance because the largest single use of water in Illinois is for cooling purposes in industrial processes.

The Governor's report estimated that by 1980 nearly twice as much water will be needed for use by municipal water supplies and that a substantial increase in industrial water use and thermal and hydropower generation also can be expected. It added that recreational uses of water, including aquatic sports and fishing, also would be likely to increase, and noted that there were sites for 600 potential lakes in addition to the more than 500 existing inland lakes.[3] The report indicated that, while there appeared to be no rapid spread of irrigation in Illinois, the question of how much increase can be expected presented one of the greatest uncertainties in predicting future water requirements for agriculture — irrigation use being considered highly consumptive.[4] Research conducted cooperatively by the United States Department of Agriculture and the University of Illinois has indicated that the estimated number of farm irrigators in Illinois increased from 199 in 1953 to 510 in 1959, and the acres irrigated increased from 5,100 to 14,900.[5] But this was still a very small portion of the Illinois cropland, and the increase had been sporadic. There was an increase in irrigated acreage from 1954 to 1956 following a dry crop season in 1953. There was a decrease in irrigated acreage during 1957 and 1958 owing to generally abundant rainfall. Irrigated acreage increased again in 1959 when an early summer drought occurred in central and southern Illinois.[6]

With expanding uses of water for a variety of purposes, an increasing number of problems and potential conflicts concerning the use, disposition, control, and development of water resources can be expected in the years ahead. An understanding of the legal rights and responsibilities in utilizing and developing the various water resources in the state is becoming increasingly important. The following discussion deals with these and numerous related subjects, including applicable federal laws and interstate and international considerations. Some laws of other states are also discussed to indicate possible answers to questions where Illinois court decisions are unclear. This probing study may be of interest not only to persons within the state but also to persons concerned about similar problems in other states.

[3] The report did not attempt to predict how much expansion in commercial navigation could be expected.

[4] Water Resource Activities in the United States: Views and Comments of the States, Select Committee on National Resources, U.S. Senate, Comm. Print No. 6 (1961) pp. 59-62.

[5] Of the 14,900 acres, 10,350 were primarily in field crops and the remainder primarily in specialty crops.

[6] See V. Davis, *Irrigation in Illinois,* in Irrigation Engineering and Maintenance 1960 Directory and Buyer's Guide, p. 22; V. Davis, Irrigation in Illinois, 1954 to 1958, Univ. Ill., Col. Agr., Dept. of Agr. Econ. AERR-33 (July, 1960).

The latter publication states, on p. 1, that while the average rainfall is greater in southern than in northern Illinois, soil moisture deficiencies tend to occur most frequently in the hill region of southern Illinois, where average rainfall is the highest, and on the sandy soils of the state.

SOURCE OF THE LAW

The use of water in Illinois has been, and still is, regulated primarily by rules of law promulgated by its supreme and appellate courts, collectively referred to as common law rules. However, water-use rights are affected also by state and federal legislation; federal court decisions; rules, orders, and regulations of state and federal agencies; interstate compacts; laws and ordinances of local governmental units and special purpose districts; and local court decisions regarding particular water-use rights that have not been overruled by the supreme or appellate courts.

In addition, the scope of these laws is regulated and limited by provisions of the state and federal constitutions. Also, such factors as prescriptive rights or contractual arrangements between individuals may vary the application, in particular situations, of the usual rules pertaining to water use. To fully understand the rights and limitations involved in water use, a knowledge of the applicable law in each of these areas is necessary.

A number of factors have caused increasing concern over the ability of existing water-use laws to cope with the problems of water allocation in humid states. These factors include increasing population, increasing per capita consumption of water, a greater number of centers having a highly concentrated population, periodic localized drought conditions and lowering of water tables, and expanding use of water for supplemental irrigation and municipal, industrial, recreational, and other uses.

There have been periodic attempts to implement the common law through legislation. In Illinois, there have been relatively few reported court decisions regarding water use. Some more or less disconnected legislation dealing with one phase or another of water use has been superimposed upon the common law of the state. The overall effect of the applicable laws often is difficult to determine.

The existing state legislation in Illinois referred to in this publication is found in the 1963 edition of the ILLINOIS REVISED STATUTES. The Illinois court decisions referred to are, unless otherwise indicated, those contained in the official reports of the Illinois Supreme Court and appellate court decisions.

Court decisions in Illinois are made on the basis of constitutional and statutory provisions. Where there is no specific provision applicable, the court applies the rule of application under the common-law adoption statute. It reads in part as follows:

> That the common law of England, so far as the same is applicable and of a general nature . . . prior to the fourth year of James the First . . . shall be the rule of decision, and shall be considered as of full force until repealed by legislative authority.[1]

[1] ILL. REV. STAT., c. 28, §1. This statute similarly incorporated "all statutes or acts of the British Parliament made in aid of, and to correct the defects of the common law, prior to the fourth year of James the First" with a few specific exceptions.

The fourth year of James the First began March 24, 1606.[2] Thus, in such cases, the courts are bound to follow only the English common law that existed prior to March 24, 1606, and then only when it is applicable.[3] If there is no applicable statutory or constitutional provision or pre-1606 common-law rule, the court is free to choose a rule in harmony with the state's legal system and conditions. It may draw upon decisions of sister states, or English common-law decisions of post-1606 vintage, or analogize from its own decisions in related matters.

The Illinois courts have discussed some early English cases, including one decided in 1626.[4] They also have cited the Magna Charta, enacted in 1215, regarding certain provisions in regard to fishing.[5] However, they have refused to follow the early English common-law criteria of navigability on the grounds that they are inapplicable to Illinois conditions.[6]

It should be noted that the court-made general rules of law may be modified by voluntary contractual arrangements, the exercise of eminent domain, prescriptive rights, legislation, and other factors. Furthermore, the applicable law appears to be unsettled regarding a number of questions, and a number of the reported court decisions are of elderly vintage and might be modified somewhat under current or future conditions. In any event, as the statutory or court-made laws may change and their application may depend upon the particular circumstances of each case, the discussion in this publication should not be regarded as a substitute for competent legal advice on specific problems.

To facilitate the use of this publication as a source book on water-use laws, some subjects are discussed in two or more sections dealing with different aspects of the same subject.

STATE WATER-USE POLICY

In 1945 the General Assembly enacted legislation creating a State Water Resources and Flood Control Board.[1] The first section of the act declared that:

. . . the general welfare of the people of this state requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or

[2] See note following the above section in ILL. REV. STAT. See also Lovalle v. Strobel, 89 Ill. 370 (1878) for a discussion of why this date was chosen.

[3] If not in harmony with the existing institutions, society, or conditions in Illinois, the court need not apply it. Schulte v. Warren, 218 Ill. 108 (1905); Komorowski v. Boston Store of Chicago, 341 Ill. 126 (1930).

[4] See The Doctrine of Riparian Rights as Stated in *Evans v. Merriweather,* p. 13.

[5] See State Jurisdiction over Natural Watercourses, p. 109.

[6] See Navigable Waters, p. 60.

[1] ILL. LAWS, 1945, p. 383 *et seq.*

to the use or flow of water in this state is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

But the legislation including this policy statement was repealed by legislation in 1961 that created a Board of Economic Development and abolished the Water Resources and Flood Control Board. The 1961 legislation transferred functions of the abolished board to the new board, with some modifications, but did not incorporate the policy declaration. It does, however, give the Board power to determine and provide for equitable reconciliation and adjustment of conflicting claims and rights to water, to determine ways of coordinating the various water uses to attain the maximum beneficial use of water resources, and to make legislative recommendations for the most feasible methods of conserving water resources and putting them to maximum possible use, taking into account a variety of specified problems.[2]

Policy statements appear in various statutes that include specific provisions regarding water resources. For example, the act creating the Sanitary Water Board[3] is introduced by a section stating:

. . . it is hereby declared to be the public policy of this state to maintain reasonable standards of purity of the waters of the state consistent with their use for domestic and industrial water supplies, for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate uses including their use in the final distribution of the water borne wastes of our economy; to provide that no waste be discharged into any waters of the state without first being given the degree of treatment necessary to prevent the pollution of such waters; to provide for the prevention, abatement, and control of new or existing water pollution; and to cooperate with other public or private agencies of the State and Federal Government in carrying out these objectives.

In 1957 the legislature included the following declaration of public policy in an act relating to the planning and construction of watershed protection and flood prevention works of improvement:[4]

The General Assembly of the State of Illinois finds that watershed protection offers a sound approach to flood prevention, provides proper management for surface water resources and for the maximum development of surface water storage for municipal, industrial, agricultural, and recreational uses for all citizens of the state, reduces the siltation of streams and lakes and helps to maintain stable normal water levels in our streams for navigation and other uses.[5]

---

[2] ". . . the problems of navigation, flood control, river flow control and stabilization, reclamation, drainage and recapture, and further utilization of water after use for any purpose, domestic and industrial use, irrigation of land, municipal use, development of electric energy, public health, recreational, fish and game life, and other beneficial use." Ill. Rev. Stat., c. 127, § 200-4(e).

[3] *Id.* c. 19. §§ 145.1 to 145.18.

[4] *Id.* §§ 128.1 to 128.3.

[5] *Id.* § 128.1. Another act is introduced by a similar declaration of policy. *Id.* § 126a.

This policy declaration tends to recognize the importance of approaching surface water-use problems on a watershed basis.

A 1959 act regarding the licensing of water-well contractors states that:

WHEREAS, because there is an ever increasing shortage of water supply in this State it is imperative that health and general welfare be protected by providing a means for the development of the natural resource of underground water in an orderly, sanitary and reasonable manner without waste so that sufficient sanitary supplies for continued population growth and for future generations may be assured. . . .[6]

The Soil and Water Conservation Districts Law[7] contains a declaration of policy which points out the need to conserve soil and water resources, control floods, prevent impairment of dams and reservoirs, and assist in maintaining the navigability of rivers and harbors to promote the general welfare of the people of the state.[8] The River Conservancy Districts Act[9] provides that such districts may be formed when the unified control of a river system shall be conducive to the conservation and protection of water supply, development of irrigation and other conservation and protection aspects.[10] A policy statement found in the first section of the Surface Water Protection Districts Act[11] refers specifically to the legislative determination of the need for facilities for the collection, conveyance and disposal of surface waters in order to protect against property damage and loss of life.

These policy statements will be considered further in connection with the specific materials to which they relate.

Comments on Repealed Policy Statement

The repealed policy statement in the 1945 act quoted above was found in the first section of an act that dealt primarily with the establishment, powers and duties of the abolished State Water Resources and Flood Control Board.[1] However, the Board apparently was given no definite powers to enforce this section. The courts were never called upon to determine its effect. But a letter opinion of the Attorney General of Illinois, given in 1948 to the Director of Public Works and Buildings, concerned the power of the Board to halt the new extraction of ground water by an industry in any area where the supply is known to be critical.[2] The Attorney General, after quoting the specific powers and duties given to the Board under the act, concluded:

[6] *Id.* c. 111½, § 116.76.
[7] *Id.* c. 5, § 106 *et seq.*
[8] *Id.* § 107.
[9] *Id.* c. 42, §§ 383 to 410.
[10] *Id.* § 383.
[11] *Id.* §§ 448 to 471.
[1] ILL. LAWS, 1945, p. 383 *et seq.*
[2] Att'y Gen. letter opinion to Hon. Walter A. Rosenfield, Director of Public Works and Buildings, Springfield, March 2, 1948, entitled Waters: Powers of State Water Resources and Flood Control Board.

. . . that the legislature created the State Water Resources and Flood Control Board as a fact-finding board and gave it power to recommend legislation to conserve the water resources in the State. While it is true that the legislature authorized and empowered the Board to arbitrate and provide ways and means for the equitable reconciliation and adjustment of the various conflicting claims and rights to water by users or uses, no authority is granted the Board to enforce its findings except to submit them to the legislature for proper consideration by that body.[3]

The Executive Secretary of the Legislative Reference Bureau questioned whether the title of the act permitted the legislature to do more than two general things in passing the act: 1) to create a Water Resources and Flood Control Board and 2) to define the powers and duties of the Board created.[4] The title of the statute read: "An act creating the State Water Resources and Flood Control Board and defining its powers and duties." It is problematical whether this title would have prevented the policy statement from directly affecting the existing law other than as incorporated in the Board's powers and duties. The Illinois Constitution, article 4, section 13, provides that "if any subject shall be embraced in an act which shall not be expressed in the title such act shall be void . . . as to so much thereof as shall not be so expressed. . . ." But the Illinois courts have not insisted that the title of an act fully express what is contained in its body,[5] and have indicated that the provisions in an act do not violate this constitutional provision if they have some reasonable relation to the title and in some reasonable sense have a tendency to promote the object of the act.[6] The Illinois courts also have said that the title of an act may be employed as an aid in construing ambiguous provisions in the act.[7]

One of the sponsors of this legislation in the General Assembly indicated that he did not feel that the statute would have a significant effect on the existing common law, although the recommendations of the Board might, at times, conflict with the common law, requiring that a court resolve the conflict.[8]

Although there were no declared means of implementing the policy

[3] Att'y Gen. letter opinion, *supra.*

[4] Letter received from Jerome Finkle, Exec. Sec., Legislative Reference Bureau, State of Illinois, Oct. 11, 1956. A memorandum to Mr. Finkle attached to the letter from him concludes: "It is submitted that the overall effect of the statute is to create a coordinating body which is designed to acquire and keep the broad picture of Illinois water needs and use or misuse before the proper governmental authorities. Such a function is not contrary to the common law of the state as [to] the use of water."

[5] See Public Service Co. v. Recktenwald, 290 Ill. 314 (1919).

[6] See People v. Lohr, 9 Ill. 2d. 539 (1956); People v. Horan, 293 Ill. 314 (1920).

[7] See Ill. Bell Tel. Co. v. Ames, 364 Ill. 362 (1936); South Park Comm'rs v. First Nat'l Bank, 177 Ill. 234 (1898).

[8] Letter dated Oct. 29, 1956, received from Robert H. Allison, Att'y at Law, Pekin, Ill., who was a sponsor of the bill in the General Assembly in 1945. J. CRIBBET, ILLINOIS WATER RIGHTS LAW AND WHAT SHOULD BE DONE ABOUT IT, Ill. State Chamber of Commerce (1958), pp. 23-24, takes the position that the statute does not purport to change existing law.

statement, it was, at the least, a legislative statement of public policy. The State Water Resources and Flood Control Board could have used it as a springboard for recommending implementing legislation, and the courts could have used it as a guide in settling disputes, thereby implementing it to some extent. The statement about reasonable beneficial use, etc., could conceivably have been self-executing (if not precluded by the title of the act). But it was not expressly declared to be so. This is in contrast to a similar provision in the California constitution from which it may have been borrowed, which was declared to be self-executing.[9]

The repealed statutory declaration of policy could have been considered by the Illinois courts in applying or modifying some of the existing court-made rules governing the use of water in Illinois. The declaration that the right to the use or flow of water shall be limited to reasonable beneficial use, etc., would not appear to be inconsistent with the riparian reasonable use rules applicable in Illinois. The courts might, however, have considered the declaration to be more or less inconsistent with the common law rules applicable to the use of so-called surface water and percolating groundwater. Hence, they conceivably could have modified such rules to make them more consistent with the statutory declaration. But the courts apparently have never referred to the statement.

TYPES OF WATER SOURCES

The Illinois courts generally have given little recognition to the hydrologic cycle through which all natural water supplies are replenished by precipitation and so may be more or less interrelated. They have applied different legal rules to different types of supply sources.

The three general legal categories of natural water supply sources are 1) natural watercourses, 2) percolating groundwater, and 3) diffused surface water.[1] The Illinois courts have consistently followed this general classification although often the terms used to designate a particular source have varied considerably.

The legal definitions and differences between these three water sources and the laws and regulations applied to each are discussed separately below. Where the Illinois law does not cover a particular situation, out-of-state decisions will sometimes be referred to in order to determine what the Illinois courts might decide.

[9] See CALIF. CONST. AMEND. 1928 (art. XIV, § 3) as discussed in W. HUTCHINS, THE CALIFORNIA LAW OF WATER RIGHTS, State of Calif. Printing Div. (1956) at 12.

[1] Each is discussed separately below. See generally Evans v. Merriweather, 4 Ill. 492 (1842) (natural watercourses); Edwards v. Haeger, 180 Ill. 99 (1899) (percolating groundwater); Gormley v. Sanford, 52 Ill. 158 (1869) (diffused surface water).

NATURAL WATERCOURSES

Definition

The following discussion describes the criteria used by the courts to distinguish natural watercourses from other legal classifications of water. Our primary concern at this point is to ascertain the criteria used to determine whether a particular source of water is a natural watercourse to which riparian rights (discussed later) attach.[1]

In various cases the Illinois courts have called a natural watercourse a stream, river, branch, lake or pond.[2] However, certain small collections of water, including some so-called ponds or lakes, may be considered or treated as diffused surface water for the purpose of determining water-use rights.[3]

As distinguished from diffused surface water.[4] The courts have spoken of natural watercourses with respect to riparian rights,[5] natural watercourses with respect to drainage,[6] natural watercourses as the term is used in a statute regulating fishing,[7] and natural watercourses as distinguished from artificial watercourses.[8]

In 1892 the supreme court was called upon to interpret the meaning of the term "watercourse" as used in a statute regulating fishing.[9] There the court said:

> To constitute a watercourse, according to the ordinary signification of the term, there must be a stream usually flowing in a particular direction, and in a definite channel, and it must usually discharge itself into some other stream or body of water.[10]

---

[1] Within the general classification of natural watercourses to which riparian rights attach, the term may be still more narrowly defined. For example, it makes a difference from a legal viewpoint whether water is in a natural watercourse that is a running stream, or in a natural watercourse such as a lake or pond. These differences are discussed in later sections.

[2] See Evans v. Merriweather, 4 Ill. 492 (1842); Plumleigh v. Dawson, 6 Ill. 544 (1844); Druly v. Adam, 102 Ill. 177 (1882); and People v. Bridges, 142 Ill. 30 (1892), respectively.

In Ribordy v. Murray, 70 Ill. App. 527 (1896), the court mentioned that witnesses had variously called the watercourse involved a slough, a bog, a gash, a swale, and a depression. This was with reference to a watercourse that was held to be one with respect to drainage, but the descriptive detail given by the court indicated that it might also fall within the narrower significance of the term. The court said, at page 534, that the action of the water had deepened and widened the ditch until it was 18 feet wide and 3 feet deep. They reasoned that only if water flowed there in considerable volume and amount could the ditch be cut to such a large size.

[3] See discussion of Surface Water, p. 137.

[4] Unless specifically stated otherwise, the term "natural watercourse" as used in this material does not include watercourses with respect to drainage.

[5] See St. Louis Bridge Ry. Ass'n v. Schultz, 226 Ill. 409 (1907).

[6] See Winhold v. Finch, 286 Ill. 614 (1919); Mellor v. Pilgrim, 3 Ill. App. 476 (1878).

[7] See People v. Bridges, 142 Ill. 30 (1892).

[8] See Baumgartner v. Bradt, 207 Ill. 345 (1904).

[9] People v. Bridges, 142 Ill. 30 (1892), construing Ill. Laws, 1887, at 189; Ill. Laws, 1889, at 158.

[10] People v. Bridges, *supra* at 37.

Although the dispute involved whether a lake fell within the definition of a watercourse and was subject to the statute (which is discussed later), it seems that the definition laid down could be applied to help distinguish between diffused surface water and water in natural watercourses.[11]

In a case involving drainage, the court defined a watercourse as follows:

> If the conformation of the land is such as to give to the surface water flowing from one tract to the other a fixed and determinate course, so as to uniformly discharge it upon the servient tract at a fixed and definite point, the course thus uniformly followed by the water in its flow, is a watercourse, within the meaning of the rule applicable to that subject. . . . But it does not seem to be important that the force of the water flowing from one tract to the other has not been sufficient to wear out a channel or canal having definite and well marked sides or banks. That depends upon the nature of the soil and the force and rapidity of the flow. If the surface water in fact uniformly or habitually flows off over a given course, having reasonable limits as to width, the line of its flow is, within the meaning of the law applicable to the discharge of surface water, a watercourse.[12]

But there is no indication that the court intended that this definition be applied, nor is there any case in which it has been applied, to determining a definition of a natural watercourse to which riparian rights attach. Certain cases indicate that the opposite is true. In *Ribordy v. Murray*[13] the court indicated that there are at least two definitions of the term watercourse, depending on whether it is used with respect to drainage or with

[11] This definition was not utilized, nor was it essential to the decision of the case. See the later discussion concerning lakes and ponds. The court held that the words "ponds and lakes" used preceding the words "and other watercourses" in the statute indicated that the word watercourses was intended to, and could, include such bodies of water.

[12] Lambert v. Alcorn, 144 Ill. 313, 324 (1893). Later cases affirm this definition of a watercourse with respect to drainage. See Ribordy v. Murray, 70 Ill. App. 527 (1896); 177 Ill. 134, 52 N.E. 325 (1898); Town of Bois D'Arc v. Convery, 255 Ill. 511, 514 (1912); Winhold v. Finch, 286 Ill. 614, 616, 617 (1919).

The earliest case discussing the distinction between diffused surface water and natural watercourses involved a drainage controversy. The court there said that an upper owner cannot collect the surface waters upon his land by artificial channels and increase the flow to his neighbor's land, but that the owner could make drains on his own lands and discharge their contents into natural watercourses. The court held that a slight depression on the land of the upper owner that ran across a highway and across the lower owner's land was not such a natural watercourse. Mellor v. Pilgrim, 3 Ill. App. 476, 479-480 (1878).

In another appellate court case, the court, in attempting to clarify an ambiguous instruction to the jury by the trial court, had this to say with regard to the distinction between diffused surface water and a natural watercourse for drainage purposes: "To speak of water flowing in a channel as 'surface water,' 'upon the surface,' is confusing and contradictory in terms. Water flowing in a channel is not flowing on the surface as that phrase is understood. It may have been surface water, and surface water may be gathered into a natural channel, although thereby increasing the flow by that channel upon the servient estate, and no liability be thereby incurred. But when gathered into a natural channel, that leads from the dominant to the servient estate, it can not then be diverted into another natural channel. . . ." [Channel here is apparently used as a generic term to indicate a natural watercourse.] Village of Crossville v. Stuart, 77 Ill. App. 513, 515 (1898).

[13] 70 Ill. App. 527, 531, 533 (1896); *aff'd* in 177 Ill. 134 (1898).

respect to other rights. It mentioned that a continuous ditch line could be either "a natural watercourse" or "where the water would flow in a state of nature," and that the term "well-defined watercourse" is often used as meaning one that has "well-defined banks and a bed," but that such a definition was not necessary where a watercourse with respect to drainage was involved.[14]

Another case that indicates the distinction between definitions of the term watercourse is *St. Louis Bridge Ry. Ass'n v. Schultz,*[15] although it, too, was a case involving drainage instead of riparian rights. The court said:

> The term "watercourse" has not always been given the same meaning by the courts. In its more restricted sense it is such a waterway as gives rise to riparian rights in the flow of the water. In that sense of the term a depression or natural drain which merely carries water in rainy seasons is not a watercourse.[16]

Hence, it appears that when the courts attempt to distinguish between a watercourse with respect to drainage and a watercourse to which riparian rights attach, they commonly consider (for the latter purpose) whether or not it has well-defined banks and a bed. Having a bed indicates that the water must flow frequently and rapidly enough, and in sufficient volume, to cut the soil where it flows.[17] It must carry water at times other than just during rainy seasons, but it is not necessary that it contain water at all times.[18]

In a case involving a complaint about water pollution, the court said that the fact that the polluted stream was not a running stream during very dry weather was no defense. On the contrary, it said this tended to aggravate the nuisance created.[19]

As distinguished from overflow water. In *Pinkstaff v. Steffy* the court stated that overflow waters of natural watercourses become surface

[14] The court then repeated the definition of a watercourse as laid down in Lambert v. Alcorn, *supra,* and declared it to be adequate for that class of cases (page 533).

[15] 226 Ill. 409 (1907).

[16] *Id.* at 414. The case involved a determination as to the legal classification of a depression called Carr Slough. This depression separated a tract of land bordering on the Mississippi River from the mainland, and, at a time of high water, in a state of nature, became an arm of the Mississippi, water from the river flowing into it at the north end and emptying out of it at the south end into the river. In its natural state it also carried away surface water falling east of it and surface water falling on the eastern portion of the tract of land between it and the river. With regard to Carr Slough, the court indicated that it might be willing to concede that it was not a natural watercourse in the narrower significance of the term. However, the issue was not in question, and the court did not expressly state that Carr Slough was not a natural watercourse to which riparian rights attach.

[17] See Lambert v. Alcorn, *supra;* Ribordy v. Murray, *supra;* Town of Bois D'Arc v. Convery, *supra;* and Winhold v. Finch, *supra.*

[18] See People v. Bridges, *supra,* and St. Louis Bridge Ry. Ass'n. v. Schultz, *supra.* The problem of distinguishing a pond or lake to which riparian rights attach from a natural collection of water that is treated as diffused surface water is considered later. See discussion of lakes and ponds, and surface water.

[19] Village of Dwight v. Hayes, 150 Ill. 273, 277 (1894).

water when they leave the confines of the watercourse. The court said:[20]

> It might, with equal force, be inquired here what difference it can make, in principle, whether the water that submerges the land of Steffy comes from the hills above the land or comes from the overflow of a stream along the same. We are unable to see either the distinction or the ground for one. Both are natural consequences. Both are burdens cast upon the adjacent lands by the laws of nature, and as applied to such creeks and streams as the one in question we have no doubt that the correct rule is "that waters which have overflowed the banks of a stream in times of freshet, in consequence of the insufficiency of the natural channel to hold them and carry them off, are surface waters, within the meaning of the rules relative to such waters."

Another Illinois case is in accord with this.[21] These cases apparently involved drainage rights, but the principles involved also might be generally applicable to questions of riparian rights.[22]

The court in the above case of *Pinkstaff v. Steffy* expressly refused to decide whether the same rule would apply to overflow waters from large rivers. In a later case, the court repeated the language of the earlier decision, adding that the width of the stream involved in the later case varied from 40 to 140 feet and that the tops of the banks, in ordinary low water, were from 8 to 18 feet above the water. This stream obviously was fairly large, but the court's language apparently still leaves open the question of overflow waters from large rivers.[23]

As distinguished from water in artificial watercourses. Waters that are in artificial or constructed watercourses instead of natural watercourses in various cases have been treated as surface waters for drainage purposes.[24] But rules of law applicable to natural watercourses may affect rights to use water in an artificial watercourse if it diverts water from a natural watercourse or constitutes an improvement (deepening, etc.) of a natural watercourse. Moreover, certain artificial watercourses, particularly those of long standing, may be treated as natural watercourses by virtue of such processes as prescription or dedication or by reason of contractual agreements.[25]

Artificially added or developed water in natural watercourses. Although the issue is not clear in Illinois, the court has had occasion to discuss the question of a watercourse that carries a mixture of natural water and artificially added or developed water. Such a watercourse often may still be called a natural watercourse, but complicated questions regarding rights to use its waters may arise, as discussed later.[26]

As distinguished from percolating groundwater. Water naturally

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[20] 216 Ill. 406, 412, (1905).

[21] Dickerson v. Goodrich, 190 Ill. App. 505, 508 (1914).

[22] See Surface Water, p. 137.

[23] C. P. and St. L. Ry. Co. v. Reuter, 223 Ill. 387 (1906).

[24] See Weidekin v. Snelson, 17 Ill. App. 461, 464, 465 (1885); Johnson v. Cunningham, 56 Ill. App. 593 (1894).

[25] See Baumgartner v. Bradt, 207 Ill. 345 (1905). Also see discussion of artificial watercourses, p. 56.

[26] See discussion of developed or added waters, p. 52.

located in the ground and capable of removal is apparently classified as "percolating groundwater" unless it is in a defined subterranean watercourse,[27] or perhaps constitutes the underflow or undercurrent of a surface watercourse.

Underflow or undercurrent is water in the saturated porous strata, if any, below and surrounding the channel bed of a surface watercourse that is so closely connected with the channel flow as to be considered a part of it. No Illinois case has decided whether the underflow or undercurrent is in law considered a part of the water of a natural watercourse, but courts in some other states have said that it is.[28]

Classification of Natural Watercourses

Within the legal category of natural watercourses there are certain further classifications. These are necessary because the rights are not always the same with regard to all such waters. There are four general classifications of natural watercourses. They are: 1) non-navigable watercourses where there is usually a flowing current of water, such as streams and small rivers; 2) navigable watercourses where there is usually a flowing current of water, such as rivers; 3) non-navigable watercourses where the bulk of the water is usually not perceptibly flowing in any particular direction, such as ponds and small lakes, and 4) navigable watercourses of the preceding type, such as large lakes.

The courts are not always consistent in the use of terms describing and distinguishing between these types of natural watercourses, but, for the sake of convenience and consistency, the following terms, which seem to be the ones most commonly used by the courts, will be used in the remainder of this material for classification purposes: 1) non-navigable watercourses, 2) navigable watercourses, 3) non-navigable lakes and ponds, and 4) navigable lakes. Many of the legal principles that apply to non-navigable watercourses also apply to the other three classifications of natural watercourses. However, there are certain notable exceptions. Therefore, the Illinois common law with regard to non-navigable watercourses will be discussed first in its entirety, and the exceptions with regard to all other natural watercourses will be specifically discussed later.

The Doctrine of Riparian Rights as Stated in *Evans v. Merriweather*

The Illinois Supreme Court has subscribed to the doctrine of riparian rights with respect to the use of water in a natural watercourse. In one of the first reported cases (*Evans v. Merriweather*)[1] decided in 1842, the

[27] See later discussion of groundwater and subterranean watercourses.

[28] Maricopa County Municipal Water Conservation Dist. No. 1 v. Southwest Cotton Co., 39 Arizona 65, 4P. 2d 369, 380 (1931). See also W. HUTCHINS, SELECTED PROBLEMS IN THE LAW OF WATER RIGHTS IN THE WEST, U.S. Dept. Agr. Misc. Pub. 418 (1942), at 8, 152.

[1] 4 Ill. 492 (1842).

court refused to accept the prior appropriation doctrine.[2] In explaining the concept of the doctrine of riparian rights, the court quoted from an early English case:[3] "A watercourse begins *'ex jure naturae,'* and, having taken a certain course naturally, cannot be diverted."[4] Then the court said further:[5] "The language of all the authorities is, that water flows in its natural course, and should be permitted thus to flow, so that all through whose land it naturally flows, may enjoy the privilege of using it."

The court, in enlarging on this statement, referred to the owners through whose land the water flows as "riparian proprietors," the type of ownership they held as "riparian ownership," and the rights to which the riparian proprietors were entitled as a result of the location of their land as "riparian rights." These rights are "usufructuary" in nature. That is, they are rights of use, not ownership, of the flowing water itself.[6]

The court mentioned that some decisions go so far as to restrict the rights of riparian proprietors in the use of water flowing over their land so that there could be no diminution in the quantity of the water and no obstruction to its course.[7] But it refused to subscribe to this view and, instead, declared the true doctrine to be that as laid down by the decision as stated by Justice Story in the 1827 federal circuit court case of *Tyler v. Wilkinson,*[8] as follows:

I do not mean to be understood as holding the doctrine that there can be no diminution whatever, and no obstruction or impediment whatever, by a riparian proprietor in the use of water as it flows; for that would be to deny any valuable use of it. There may be, and there must be of that which is common to all, a reasonable use. The true test of the principle and extent of the use is whether it is to the injury of the other proprietors or not. There may be diminution in quantity, or a retardation or acceleration of the natural current, indispensable for the general and valuable use of the water, perfectly consistent with the use of the common right. The diminution, retardation, or acceleration, not positively and sensibly injurious, by diminishing the value of the common right, is an implied element in the right of using the stream at all. The law here, as in many other cases, acts with a reasonable reference to public convenience and general good, and is not betrayed into a narrow strictness,

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[2] The court, at 495, quoted with approval from the opinion of Justice Story in Tyler v. Wilkinson, 4 Mason 400, Fed. Cases, No. 14, 312 (1827), as follows: "That of a thing common by nature, there may be an appropriation by general consent or grant. Mere priority of appropriation of running water, without such consent or grant, confers no exclusive right."

In an earlier case, which involved an action by an upper milldam proprietor against a lower one for overflowing his upper milldam, the court held that one who first erects a milldam thereby acquires no right to overflow the land or mills of his neighbors. Stout v. McAdams, 3 Ill. 68 (1839).

[3] *Citing* Bulstrode, 339. Apparently the court meant Shury v. Piggot, 3 Bulstrode 339, 81 Eng. Rep. 280 (1626).

[4] Evans v. Merriweather, *supra,* at 494.

[5] *Ibid.*

[6] See also Clark v. Lindsay Light and Chemical Co., 405 Ill. 139, 89 N.E. 2d. 900, 902 (1950).

[7] Evans v. Merriweather, *supra,* at 494.

[8] 4 Mason 400 (1827).

subversive of common use, nor into an extravagant looseness, which would destroy private rights.

The court expanded on this statement by declaring that the use must be a reasonable one, and further that "Each riparian proprietor is bound to make such a use of running water, as to do as little injury to those below him as is consistent with a valuable benefit to himself."[9] The court went on to a more specific definition of reasonable use. According to the court, uses of water are of two general types: natural uses or wants, and artificial uses or wants. Natural uses are those that are absolutely necessary to be supplied in order to exist, such as to quench thirst, for household purposes, and water for cattle.[10] Artificial uses are those uses that only increase the proprietor's prosperity and comfort, such as irrigating lands and propelling machinery by steam or hydraulic power.[11]

Each riparian proprietor in his turn may, if necessary, consume all the water for natural uses. But of that water not needed to supply natural wants, a different rule obtains. All riparian proprietors have a right to participate in the benefits, but none has a right to use all the water. The facts of each case must be looked at individually to determine how much each riparian proprietor may use for artificial uses without infringing upon the rights of others. The guiding rule for determination in each particular case is whether, under all the circumstances, a riparian proprietor has used only his just proportion.[12]

Thus the court seemed to conclude that any natural use is a reasonable use and any artificial use is also a reasonable use if, under all circumstances, only a just proportion is used. The court indicated that ordinarily only the judgment of the jury can determine whether one has used more than his just proportion for artificial uses.[13]

From this analysis of the doctrine of riparian rights by the court, the court subscribed to a rule of reasonable use as opposed to one of natural flow, and said that at least a certain amount of consumptive use in addition to domestic uses is permissible under the doctrine. The case involved the competing use of water from a stream by two riparian proprietors to make steam for powering their woolen mills. But the court held that the diversion of the *entire* flow of the stream by the upper proprietor for such purposes was "clearly illegal" and affirmed a judgment awarding $150 damages. Further refinements of the doctrine in later cases tend to cloud the question of permissible diversion of water from a watercourse, as will be seen from the later discussion of particular aspects of the doctrine delineated by the court in this initial case on the subject.[14]

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[9] Evans v. Merriweather, *supra*, at 495.

[10] ANGELL, WATERCOURSES, 7th ed. (1877), at p. 206, states the belief that this was the first reported case in this country to make this distinction. The question of the number of cattle that may be watered and still be considered a natural use is discussed in a later section.

[11] Evans v. Merriweather, *supra*, at 495.

[12] *Ibid.*

[13] *Id.*, at 494.

[14] See The Extent of Riparian Rights, p. 26.

Where and by Whom Water May Be Used

These two issues often are so interrelated that they will be treated together. Among the more important questions involved are 1) what is riparian land? 2) may a riparian landowner use water on his nonriparian land? and 3) may nonriparian use of water be made under a contract or grant from a riparian owner?

What is riparian land? The Illinois courts in various cases have held that the right to use the waters of a natural watercourse is incident to the proprietor's property in the banks and bed of the watercourse;[1] an incident to his ownership of the adjoining land;[2] and a natural incident of the estate of one who owns land bordering upon a running stream.[3] It seems apparent that the intention of the courts is to limit riparian rights to rights incidental to the ownership of bordering or adjoining land, but it is not clear how far this right extends.[4]

A number of courts in other states have limited the definition of riparian land to that portion of land bordering on the watercourse that is within the watershed. Some courts generally limit it still further, to land that has always been held as a single tract of land throughout its chain of title. Under this approach, the conveyance of any part of the original ownership tract acquired from the government that does not touch the watercourse results in the loss of riparian rights with respect to that part

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[1] See Druley v. Adam, *supra,* at 195. The court, at 193, stated that one beneficial use which a riparian owner is entitled to make of the water, subject to a like right of other riparian owners, is to "impart fertility to the *adjacent* soil." (Emphasis added.)

[2] *Ibid.* at 193, as quoted in Indian Refining Co. v. Ambraw River Drainage Dist., 1 F. Supp. 937, 938 (1933); Clark v. Lindsay Light and Chemical Co., 405 Ill. 139 (1950).

[3] Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469, 473 (1938).

[4] The court has held that land separated from a stream by a public road, the fee title to which was held by a city, was not riparian to the stream. Canal Trustees v. Haven, 11 Ill. 554, 556 (1850). The court did not consider whether riparian rights and access across the road might have been expressly reserved in the conveyance of land for the road. Nor did it consider what the effect might be if a city or the public merely acquires an easement for such a highway rather than fee title to the land. Courts in some other states have indicated that riparian rights would not be cut off if only an easement is acquired. See 56 Am. Jur., *Waters* § 280. The Illinois court's language tended to imply such a result. (Incidentally, the Attorney General has expressed the opinion that when condemnation is employed for such purposes only an easement, not fee title, ordinarily is acquired. See Ops. Att'y Gen., 1956, at 203).

In Godfrey v. City of Alton, 12 Ill. 29, 36 (1850) the court, without discussing the question of fee title ownership, indicated that when an easement is granted to the public along the margin of a *navigable* stream the public acquires the right to use it as a public landing as well as a street and the grantor can reserve no interest in the bed of the stream to the prejudice of the enjoyment of the public easement thus granted over it. [See also Village of Brooklyn v. Smith, 104 Ill. 429, 436 (1882) where the related questions of bed ownership and ice removal rights were involved.] But it would seem that riparian rights might be expressly reserved when the easement granted is expressly limited to highway purposes, particularly if the stream is nonnavigable. [In the People v. City of Rock Island, 215 Ill. 488, 494 (1905) the court noted that "The street was laid out in connection with the river, and was plainly intended for the purpose of a public landing as well as a street."]

(never to be regained) unless a contrary intention is manifested.[5] But in an 1875 case in a lower Pennsylvania court, the court held that a tract of riparian land may be reunited after being separated, and riparian rights thereby may be reestablished for the benefit of the whole reunited tract even though there apparently had been no attempt to retain riparian rights for the benefit of the severed parcel when the tracts were separated.[6] A similar result appears to have been reached in a similar situation in a 1917 case decided by the Pennsylvania Superior Court.[7] The only requirement mentioned by the court for land to be riparian was as follows: "The property right created because a stream of water passes over a tract of land appertains to all the land bordering on the stream, the title to which is in the riparian owner." In this case, the water was being used on land lying beyond the watershed of the stream and about a mile and one-half from the stream.[8]

Similar language was employed by the Oregon Supreme Court in a case in 1901.[9] There an owner of riparian land had purchased adjoining

[5] In some states such a contrary intention generally may need to be expressly stated in deeds, etc. But the California Supreme Court has said it would allow such intention to be shown from other circumstances such as prior use of water on, or canals leading to, such land. Hudson v. Dailey, 156 Calif. 617, 624-625, 105 Pac. 748 (1909), discussed in W. HUTCHINS, THE CALIFORNIA LAW OF WATER RIGHTS, State of Calif. Printing Div. (1956), pp. 195-196.

[6] Slack v. Marsh, 11 Phila., 543, 545 (Pa. C. P. Ct., Chester County).

[7] Riparian lands held by a previous owner apparently had been separated by conveyances but were later reunited. (It also seems likely that the lands held by the previous owner had been previously joined together through separate purchases of adjoining tracts.)

Based on a review of the reported opinion, the map cited at page 12 but not included in the reported opinion, and the *complete* "case stated" which was "abstracted and condensed" in the reported opinion. Consolidated Water Supply Co. v. State Hospital for Criminal Insane, 66 Pa. Sup. 610, 623-24, 616, 614, 622 (1917). See also 267 Pa. State 29, 35 (1920), on appeal to the state supreme court from later proceedings in this case. In affirming the lower court's opinion, the court said, among other things, that the superior court had correctly decided the governing issue, concerning title to the water in controversy. See 267 Pa. State at p. 40.

[8] On appeal to the state's supreme court from later proceedings in the common pleas court in this case, that court noted that the lower court had concluded that "there had been no departure by plaintiff 'from compliance with the rule for the return of surplus water, if any, to the original channel' of the stream." State Hospital for Criminal Insane v. Consolidated Water Supply Co., 267 Pa. State 29, 35.

[9] See Jones v. Conn, 39 Ore. 30, 39-41, 64 Pac. 855, rehearing denied, 39 Ore. 46, 65 Pac. 1068 (1901). The court added that the distance from a stream and extent of land area involved may be considered in deciding the reasonableness of use, but that the volume of water used would be a more important consideration. The court said "It would seem . . . that any person owning land which abuts upon or through which a natural stream of water flows is a riparian proprietor, entitled to the rights of such, without regard to the extent of his land, or from whom or when he acquired his title. The fact that he may have procured the particular tract washed by the stream at one time, and subsequently purchased land adjoining it, will not make him any the less a riparian proprietor, nor should it alone be a valid objection to his using the water on the land last acquired. The only thing necessary to entitle him to the right of a riparian proprietor is to show that the body of land owned by him borders upon a stream." A part of the land held to be riparian was beyond the watershed. See 39 Ore. at p. 32.

nonriparian land that was not disclosed to have ever been a part of any tract riparian to the stream since it was originally conveyed by the government. The court held the entire contiguous ownership tract to be riparian land. While this was quoted approvingly in a 1905 Kansas case,[10] the Oregon court's interpretation of some earlier California cases in this regard has not been supported by later California cases.[11] It is problematical whether this approach would be followed in Oregon today.[12] In any event, many water rights in both Oregon and Kansas are subordinate to or based upon a statutory prior appropriation system.[13]

The Illinois courts have not decided such questions. But the Illinois Supreme Court has said, concerning drainage matters and matters involving increased flow in watercourses, that it is well settled that a landowner through whose land a watercourse runs is bound to accept only such water as comes from the natural drainage basin of the watercourse.[14] An upper owner may not cut through a "divide" or natural barrier and cause water to flow across that barrier which would not otherwise naturally flow into that drainage basin.[15]

Thus, from the standpoint of the landowners in the other watershed, a riparian proprietor would have no right to cause water to flow into that watershed if it increased the drainage burden of its watercourses. The court might reason from this, although it has never considered the matter, that a duty exists to keep water within its own watershed so the riparian owners within the watershed can realize their rights of use. This is the view of courts of certain sister states. In a Massachusetts case the court said:

> Abstraction for use elsewhere not only diminishes the flow of the parent stream but also increases that which drains the watershed into which the diversion is made, and may injure thereby riparian rights upon it. Damage thus may be occasioned in a double aspect . . .[16]

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[10] Clark v. Allaman, 71 Kan. 206, 80 Pac. 571, 585 (1905). But the Kansas court, unlike the Oregon court, indicated that to be riparian to a particular stream the land could not extend beyond its watershed.

[11] Based on W. HUTCHINS, THE CALIFORNIA LAW OF WATER RIGHTS, State of Calif. Printing Div. (1956), pp. 200-202.

[12] See Fitzstephens v. Watson, 218 Ore. 185, 344 Pac. 2d. 221 (1959) and Norwood v. Eastern Oregon Land Co., 112 Ore. 106, 227 Pac. 1111 (1924).

[13] In Fitzstephens v. Watson, *supra,* the Oregon court said that "very little vestige of the riparian doctrine remains in this state insofar as it may be asserted against those who base their claim to the use of water on the priority of appropriation under the water code. See Hutchins, *The Common-Law Riparian Doctrine in Oregon: Legislative and Judicial Modification,* 36 ORE. L. REV. 193 (1957)." Also see W. HUTCHINS, THE KANSAS LAW OF WATER RIGHTS, Kan. State Bd. Agr. and State Water Resources Bd. (1957) at 38.

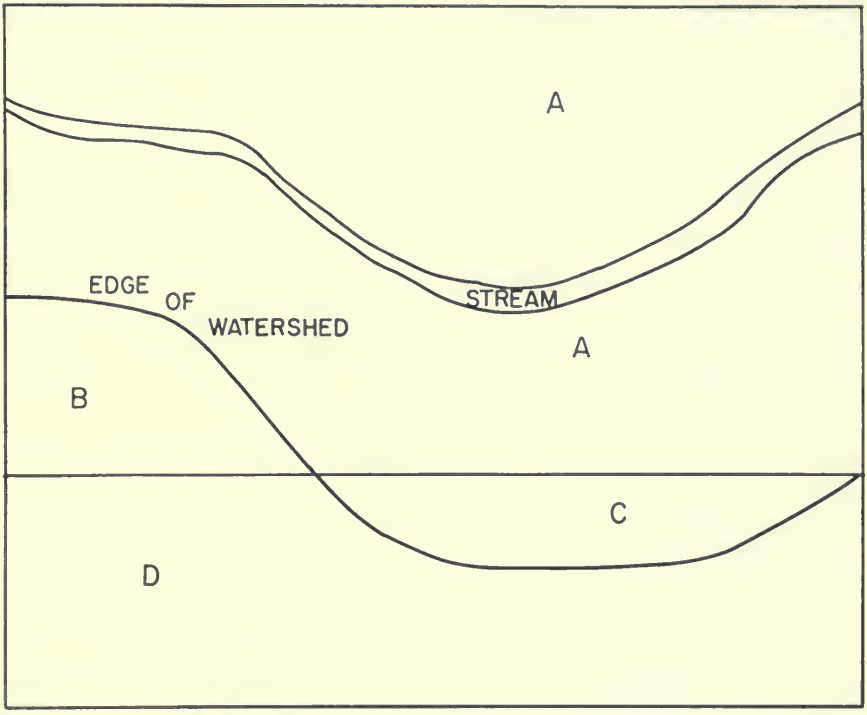
[14] Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 20 (1934).

[15] See, *e.g.,* Anderson v. Henderson, 124 Ill. 164, 170 (1888); Dayton v. Drainage Commr's, 128 Ill. 271 (1889); People *ex rel.* Speck v. Peeler, 290 Ill. 451 (1919).

[16] Stratton v. Mt. Herman Boys' School, 216 Mass. 83, 103 N. E. 87, 88 (1913). In Anaheim Union Water Co. v. Fuller, 150 Calif. 327, 330, 88 Pac. 978 (1907) the watershed limitation was based primarily on the view that water that is not consumed in use may thereby return to the stream.

Use of water on nonriparian land. Statements in some Illinois cases seem to generally restrict the use of water to riparian land. But at least under certain circumstances water may be used elsewhere than on riparian land. Contracts and grants for the use of water of natural watercourses

FIGURE 1. — WHAT IS RIPARIAN LAND?



This area of land adjoining a stream is held by one owner. At one time the two tracts (**A**-**B** and **C**-**D**) were under separate ownership. How much of this man's holding is riparian land with respect to this stream?

A is probably riparian land. It borders on the stream, is within its watershed, and has always been held in a single tract (**A**-**B**) throughout its chain of title.

B is part of the adjoining tract (**A**-**B**), but it may not be riparian because it is outside the watershed.

C is within the watershed, but, as part of a tract that does not border on the stream (**C**-**D**), it may not be riparian.

D may not be riparian land for the same reason as **C** and also because it is not within the watershed. As it lies in another watershed, it conceivably could be riparian to some other stream in that watershed. However, since it does not border upon any such stream, it may not be riparian to it either.

on nonriparian lands have been sanctioned by the courts. But the question of their effect on the rights of other riparian landowners who have not consented to such use appears to be unsettled. Rights to make nonriparian use also may be acquired by prescription or by condemnation (for public purposes) as against certain riparian owners.[17]

An appellate court case decided in 1899, involving the City of Elgin, appears to bear on the question of whether a riparian owner may use the water of a natural watercourse on nonriparian land. The court said that a city that had purchased an acre of ground along a river above the city for its waterworks (to obtain water for domestic, fire, and sanitary purposes) became a riparian owner. Furthermore, the court said, if the watercourse were non-navigable the city would be entitled to use "its proportionate share of the waters of the river."[18] (But this statement was not necessary in deciding the case, as the case involved a navigable watercourse and the court gave two other grounds for its decision.) The land within the city where the water was used would not qualify as riparian land by any of the above-discussed criteria.[19]

The *Elgin* case is contrary to the approach to the question that has

[17] See discussion under applicable sections.

[18] City of Elgin v. Elgin Hydraulic Co., 85 Ill. App. (2d. Dist.) 182, 188, 191 (1899), *aff'd on other grounds* in 194 Ill. 476 (1902).

[19] See the description of the case under Navigable Waters: Municipal Water Use, p. 75. In another appellate court case, the court protected an on-stream source of municipal water supply against upstream pollution, but without discussing whether or how the municipality had acquired rights to use the water for such purposes. (The city had alleged it owned riparian land for its waterworks and had been using the water for over 40 years. See Prescription, p. 50.) The court simply said that "a municipality may maintain a bill for injunction to restrain an injury to its public water supply, and such an action is vested as representing the public interest, with all the rights of a riparian owner." City of Springfield v. North Fork Outlet Drainage District, 249 Ill. App. 133, 149 (3rd Dist., 1928).

In a recent case the supreme court, on the facts presented, upheld the validity of a city's ordinance prohibiting oil and gas well operations in lands in the vicinity of a lake from which its water supply was obtained. But the city's right to use the lake was not in issue. The court noted simply that the lake was "owned by the city." City of West Frankfort v. Fullop, 6 Ill. 2d. 609 (1955). Both of these cases stressed the matter of protecting the public interest.

Other Illinois cases involving the rights of a municipal corporation with regard to their use of waters of natural watercourses have involved pollution by a city, drainage, changing the channel of a watercourse, and obstruction of a stream causing overflow. In such cases the courts generally have held or said that a municipal corporation stands in no better position than an individual with regard to riparian rights. See as to pollution by a city, Eckart v. City of Belleville, 294 Ill. App. 144 (1938); Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11 (1934); Cook v. City of DuQuoin, 256 Ill. App. 452 (1930); Johnston v. City of Galva, 316 Ill. 598 (1925); City of Kewanee v. Otley, 204 Ill. 402 (1903); Village of Dwight v. Hayes, 150 Ill. 273 (1894); Elgin Hydraulic Co. v. City of Elgin, 74 Ill. 433 (1874); Buckles v. City of Decatur, 234 Ill. App. 89 (1924). See Elser v. Village of Gross Point, 223 Ill. 230 (1906); City of Elgin v. Kimbal, 90 Ill. 356 (1878); Nevins v. Peoria, 41 Ill. 502 (1866) regarding drainage. See Atherton v. East Side Levee and Sanitary District, 211 Ill. App. 55 (1918) as to changing the channel. See City of Centralia v. Wright, 156 Ill. 561 (1895) regarding obstruction causing overflow.

been taken in most other states. A city generally is subject to about the same limitations as are other riparian owners. None generally is permitted to use water on nonriparian land as against a complaining riparian owner who has not consented thereto[20] (or whose rights have not been taken from him by condemnation or prescription, discussed later) although in some states such use is permissible until he thereby suffers some actual or imminent damage.[21] But the *Elgin* case tends to be in accord with the approach taken in a few states.[22] The Ohio Supreme Court has treated an entire municipality located on a watercourse as riparian.[23] Moreover, courts in a few states have allowed nonriparian use for non-municipal purposes, by riparian owners or others, as long as such use is considered reasonable under all the circumstances.[24]

Most of the Illinois cases having some bearing on the question of rights to use water on nonriparian land have involved contracts or grants by riparian landowners. In the first instance, the right to use the water of a natural watercourse apparently is limited to a riparian proprietor.[25] But others may obtain this right by contract or lease,[26] grant,[27] or prescription.[28] In such cases, no question is presented if the riparian right arises as an incident of a riparian estate obtained from the riparian proprietor.[29] For example, if a riparian proprietor conveys or leases his riparian land to

[20] Nor is bound by any agreement made by a prior owner of his property.

[21] See Alspaugh, *Real Property-Riparian Rights,* 34 N. Car. L. Rev. 247 (1956); Ellis, *Water Rights in the Eastern States,* Farm Policy Forum, Fall 1955.

In this connection, the repealed statement of legislative policy, discussed earlier, conceivably might have been looked to by the Illinois courts as an aid in deciding the extent of permissible nonriparian use, although any effect it might have had is highly speculative. Prior to a similar provision in a California constitutional amendment of 1928 (art. XIV, § 3, which unlike the Illinois statute was expressly declared to be self executing), riparian owners were held to be entitled to the entire natural flow of a stream as against one claiming prior appropriation rights to make nonriparian or other use. The amendment was held to limit riparian rights to reasonable beneficial uses, present and prospective, that can be made on one's riparian land, and a riparian owner is no longer entitled to an injuction or damages as against an appropriator exercising a right admittedly subordinate but in no way injurious to his riparian right. Appropriators may take the surplus above the needs of riparian owners for reasonable beneficial uses. See W. Hutchins, The California Law of Water Rights, pp. 12-18, 62-67, 226. Prior appropriation rights have been negated by the Illinois courts, but the principles involved may be analagous.

[22] See 56 Am. Jur., Waters, § 283; 141 A. L. R. 639.

[23] Giving it *preferential* rights for domestic uses (as against lower riparian owners) but restricting its supply of water to outside users. City of Canton v. Shock, 66 Ohio St. 19, 63 N. E. 600 (1902).

[24] See Ellis, *Some Current and Proposed Water Rights Legislation in the Eastern States,* Iowa L. Rev., Winter 1956, at p. 257, Alspaugh, *op. cit.*

[25] See earlier discussion under the Doctrine of Riparian Rights as Stated in Evans v. Merriweather, p. 13.

[26] See Marseilles L. and W. P. Co. v. O'Neil, 218 Ill. App. 602 (1920).

[27] See Canal Trustees v. Haven, 11 Ill. 554 (1850).

[28] See Indian Refining Co. v. Ambraw River Drainage District, 1 F. Supp. 937, 938 (E. D. Illinois, 1933), *citing* Ballard v. Struckman, 14 N. E. 682, 123 Ill. 636 (1888) as authority. See later discussion of prescription.

[29] See Remedies, p. 191, for a further discussion of this point.

another without reserving the riparian rights to himself, his grantee or lessee stands in his place so far as rights of use of the water are concerned.[30] The same is true if one obtains riparian land from a riparian owner by adverse possession. He also obtains the riparian rights as an incident of the estate gained.[31] But problems arise when an attempt is made to sever the incident of riparian right from the riparian land, and grant or lease it to another, while retaining ownership of the riparian land or transferring it to a third party.

Contracts and grants for the use of waters of natural watercourses have been sanctioned by the courts in numerous cases.[32] But the courts have seldom decided or said anything about the rights of riparian owners who have not consented to such contracts or grants and are not bound by any agreements made by prior owners of their properties. Three kinds of situations might arise in this regard: 1) A contract or grant might deal with riparian rights without including any right of way or easement to the source of supply; 2) it might deal only with a right of way or easement to the source of supply without specifically including any riparian rights; or 3) it might deal both with rights of way or easements to the source of supply and with specific riparian rights. In addition to these possibilities, the contractee or grantee might be a nonriparian proprietor with regard to the source of supply involved, or he might be one of the other riparian proprietors along the watercourse.[33] The courts, however, have not clearly expressed their views with regard to each possibility.

As to the first situation mentioned, it seems that when a right of way leading to a natural watercourse is granted, an easement to use the source of supply might be implied if the contractee or grantee were a nonriparian owner. Otherwise he would be unable to make any use of the subject matter of the grant.[34] But if he were another riparian owner, he might already have access to the source of supply by virtue of his own riparian proprietorship.

A federal court in an Illinois case has said: "Lessees and owners of rights of way or easements and grantees of riparian rights are also riparian owners, and to the extent of their title, endowed with all the rights thereof."[35]

Such language would seem to make recipients of rights of way riparian proprietors under all types of situations mentioned above. But the Illinois

[30] See Canal Trustees v. Haven, *supra,* and Allott v. Wilmington Light and Power Co., 288 Ill. 541 (1919).

[31] Mauvaisterre Drainage and Levee District v. Wabash Railway Co., 299 Ill. 299 (1921).

[32] See, *e.g.,* Batavia Manufacturing Co. v. Newton Wagon Co., 91 Ill. 230 (1878).

[33] Evans v. Merriweather, *supra,* indicated that riparian proprietors, as between themselves, could contract or grant to one another, their respective riparian rights to a common source. See Allott v. American Strawboard Co., 267 Ill. 272 (1915), for a direct holding to this effect.

[34] See Traylor v. Parkinson, 355 Ill. 476 (1934).

[35] Indian Refining Co. v. Ambraw River Drainage Dist., 1 F. Supp. 937, 938 (E. D. Illinois, 1933), citing some out-of-state cases.

courts have not been so explicit. Moreover, this case did not deal directly with the question of a riparian owner's conveyance of rights to take water from a watercourse for nonriparian purposes. The quoted statement related to the return of waste water to a river through a right of way by an oil refinery company. The company was removing water from the river on its riparian property and using the water in its refinery on land "just south of the pump property, but a short way from the river . . ." by virtue of prescriptive rights.[36] The company won an injunction to prevent a drainage district from reducing the flow and affecting its operations by changing the channel.

In the *Batavia Manufacturing Co.* case, decided in 1878, the court expressly stated that a contract purporting to convey to another a riparian proprietor's rights in water for power purposes "could not be a sale of the water of the river, or of its momentum (which they could only own the right to use on their own soil). It could but amount to an estoppel of their right to use the momentum of so much water." The court also stated that the contractee under such a contract could "have no title or interest in the water not actually and properly appropriated in propelling their machinery." But, it said, this does not deny the riparian proprietors, "or their grantees, the power to enter into valid contracts to abridge their use to one-half or any less quantity of water in propelling their machinery," thus expressly holding that a contract or grant of the right to use water could be effective as against the grantor and those claiming under him. On the other hand, it held that where a riparian owner (or his predecessor in title) had not expressly nor impliedly consented to an arrangement made by another riparian owner to transfer water from one side of the river to a pond on the other side, he was not bound thereby. It added: "As to him, the case is as if that contract had not been made."[37] Both of the parties to the dispute owned water-power rights resulting largely from a division of such rights by prior co-owners of the land on both sides of the river, and the court's decision was based largely on its interpretation of the various grants and contracts. No question of nonriparian use appears to have been at issue.

In a relatively recent case the supreme court upheld the terms of a transaction by owners of lots on a river that specified the amount of water each owner was entitled to use for water-power purposes. The court in that case further specifically declared that riparian rights in a lower tract of land could be conveyed to the owner of an upper tract of land and that such conveyance caused the water rights involved to become appurtenant to the upper tract of land. However, the court did not decide any issue regarding any possible adverse effects of such a transfer upon the riparian rights of intervening riparian owners who have not consented thereto. (The case involved the liability of an upstream water user for impairing the rights of the lot owners.) The case did not, however, deal with the question of nonriparian use.

[36] See later discussion of prescription.

[37] Batavia Manufacturing Co. v. Newton Wagon Co., *supra*, pp. 241-242.

In a 1911 case, the court said that a grant of a right to use water for power purposes, not restricted to use on any particular land, was not a conventional easement but was a *profit à prendre.*[38] That is, it was a right to enter upon land and take away part of its soil or produce. The court elaborated by saying that

> . . . running water is not the subject of property, and therefore the right to enter upon another's land and take water from a natural spring or stream is an easement, but the right to take it from cisterns or wells, where it has been artificially developed, is a *profit à prendre.*[39]

The court concluded that since the grant of water for power was from a supply impounded by a dam, it was developed by a combination of natural and artificial forces and partook of the nature of a *profit à prendre;* and that, for tax purposes, the interest of the grantee in the water was the use of the water to produce power and this interest for tax purposes was real estate.

By treating the grant in this case as valid, and by its statements of the law, the court alluded to the following propositions: 1) that grants of riparian rights may be made without regard to the land upon which the water will be used, 2) that the grant of a right to enter upon land and take water from a natural source is an easement, and 3) that the grant of a right to enter upon land and take water from a source developed at least partially by artificial means is a *profit à prendre.* However, since the issue was not raised, the court did not decide whether the rights of riparian owners who had not consented to any such grant could be adversely affected by it.

In 1902 the court stated that a company which had been granted only the machinery and appurtenances for converting water of a river into power, and which has the duty to keep these instruments in repair and to regulate the use of the water by the riparian owners, is not a riparian owner and cannot, therefore, maintain an action against another for interference with the flow of the water.[40] The court declared that, to be a riparian proprietor, one must 1) have a property right in the water, or 2) have a pecuniary interest in the water, and that the company had neither.

An appellate court case,[41] later affirmed without comment on this particular point by the supreme court,[42] states that a grant of riparian rights may be binding on successors in title to both parties, thus standing for the proposition that such grants are something more than mere personal contracts. Another appellate court case held that a 99-year lease of water power made in connection with a grant of other real estate was valid and was a covenant running with the land.[43] The dispute was between the lessee and the holder of a lien to secure payment of the rent.

[38] Moline Water Power Co. v. Cox, 252 Ill. 348 (1911).
[39] *Id.* at 356, 357.
[40] Elgin Hydraulic Co. v. City of Elgin, *supra.*
[41] Adams v. Slater, 8 Ill. App. 72, 83 (1880).
[42] In 102 Ill. 177 (1882).
[43] Marseilles L. and W. P. Co. v. O'Neil, 218 Ill. App. 602, 607 (1920).

The language in these cases is sometimes difficult to rationalize, especially when the statements from the *Batavia Manufacturing Co.* case concerning estoppel are interjected into the discussion. However, it seems that a nonriparian user generally would have at least a pecuniary interest in the water, and might, under the views stated in some later cases, have a right to maintain an action against third parties interfering with his right. Even if his right of action, at the time of the *Batavia* case, would lie only against the riparian owner (or his successor in title) from whom he obtained his right, under modern Illinois court practice he might be able to maintain directly, to the extent of his right, any action that his grantor would have had a right to maintain.[44]

However, it is hard to know whether or to what extent the Illinois courts would treat owners of rights of way or easements and grantees of riparian rights as riparian owners. It also is difficult to say whether, as a general rule, nonriparian use of water may be made by a grantee of a riparian owner as against other riparian owners. (Such a rule would be contrary to the usual approach taken in other states, as noted above.) If the Illinois courts would generally allow such nonriparian use, they perhaps would hold that if the riparian owner conveys away all of his riparian rights, the grantee obtains a right of use measured by the extent of the grantor's riparian rights, that is, on the basis of his riparian land, his natural wants, and his just proportion of the water available for artificial uses.

If this approach were followed, it would seem that the owner of riparian land could also utilize the same measure of his riparian rights upon land owned by him that is not riparian to the particular source of supply involved.[45] This approach would give the riparian owner broad rights to determine, although perhaps within certain reasonable use limitations, where the benefits of his share of the totality of riparian rights of a particular watercourse are to be utilized. However, the *Elgin* case decided by an appellate court as discussed above, suggests that, at least for municipal purposes, the right to use water on nonriparian land may not be limited to the measure of what could be lawfully used on riparian land. Recall that there the court simply said that the city could use "its proportionate share of the waters" without including any requirement that its share need be limited to what it could use on the riparian land it owned.[46] But what approach the Supreme Court will take regarding municipal or nonriparian uses is problematical.

[44] See ILL. REV. STAT., c. 110, § 22 regarding assignees of choses in action.

[45] See WIS. STAT. ANNOT. § 30.18(5) as amended by WIS. LAWS (1963), c. 32, for a somewhat similar statutory rule regarding use by a riparian owner for agricultural or irrigation purposes. This permits such nonriparian use by the riparian owner on *any* lands *contiguous* to his riparian land.

[46] Such a view would be in general accord with the decisions of the few other state courts that permit nonriparian use for municipal or other purposes, as discussed above.

On the other hand, even if the Illinois courts follow the above approach, by virtue of the definition of natural wants, a riparian owner perhaps could not convey them to a nonriparian owner, at least as against other riparian owners. For, once he decides

In any event, where a grant is for something less than all of the grantor's riparian rights, the extent of the grant depends upon the exact terms of the instrument of conveyance; and such instrument apparently would be narrowly construed. For example, where a deed conveyed to the grantee the right to divert water from the Des Plaines River into a canal for the purposes of navigation, the grantee could not utilize a part of the diverted water for power purposes, even though the same water was necessary for the navigation purposes expressed in the deed.[47]

On the other hand, the court has held that in a conveyance of property where the grantor also had water rights that were a necessary appurtenance to the property granted to make it of any value, the conveyance of such water rights would be presumed to have been included in the grant, even without specific language to that effect in the instrument of conveyance.[48] Thus, it seems that a grant of a right of way or easement to the edge of a watercourse, without any indication as to the purpose of such right of way, would at least be presumed to include the riparian right of ingress and egress from the water's edge at the point of the right of way.

The Extent of Riparian Rights

In the landmark case on this subject (*Evans v. Merriweather, supra*) the supreme court, in the initial statement of its analysis of general principles as laid down in certain early English and American cases and treatises,[1] including *Tyler v. Wilkinson,*[2] stated: "Each riparian proprietor is bound to make such a use of running water as to do as little injury to those below him as is consistent with a valuable benefit to himself. The use must be a reasonable one."[3]

The court continued by asking the question, "What is a reasonable use?" and then proceeded to answer that question by first specifying two categories of use: natural uses or wants, and artificial uses or wants. To determine the extent of riparian rights on the basis of the reasonableness test initially laid down by the court, it is necessary to discuss these two water-use categories separately.

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not to make use of the water for his domestic purposes, for watering his cattle, and for like uses classified as absolutely necessary to *his* existence, and conveys the right of use to another without conveying the land by which he obtains his riparian rights, any such use by the grantee might be considered as "artificial" use. But the *Elgin* case perhaps took a contrary approach with respect to domestic uses supplied by a municipality, unless the court was treating all the land within the municipality as riparian land for municipal use purposes and the water was all being used within its limits. The court did not discuss this question. See City of Elgin v. Elgin Hydraulic Co., *supra.*

[47] Adams v. Slater, 8 Ill. App. 72 (1880), *aff'd* in Druley v. Adam, 102 Ill. 177 (1882).

[48] Jarvis v. Seele Milling Co., 173 Ill. 192, 195 (1898).

[1] See discussion of The Doctrine of Riparian Rights as Stated in *Evans v. Merriweather,* p. 13.

[2] 4 Mason 397, Fed. Case No. 14, 312 (1827).

[3] Evans v. Merriweather, *supra,* at 495.

Natural uses. The court declared that each riparian proprietor in his turn may, if necessary to satisfy his natural wants, exhaust the supply of water without liability to lower riparian proprietors.[4] This presumably meant that the uppermost landowner along a stream, then the next downstream owner, and so on, could do so. If the riparian proprietor owns land on only one side of the watercourse, he might be required to allow the opposite riparian owner to use, to satisfy his natural wants, up to one-half the water flowing down to them.[5]

This definition of natural uses was given more than 100 years ago when the uses of water were rather basic and relatively easily distinguished. Today, it is difficult to be sure what uses should be included in the definition. The court defined natural uses generally as those uses that "are absolutely necessary to be supplied, in order to his [the riparian proprietor's] existence,"[6] and then, in the second sentence following, in naming a specific natural use, qualified the statement by adding "in civilized life." The court specifically named the following uses as natural uses: 1) quenching thirst, 2) for household purposes, 3) for cattle, and 4) (more generally) for domestic purposes. It specifically excluded the following: 1) water for irrigation and 2) water used for propelling machinery. What other uses fall within the category of natural wants is open to speculation. Even the exact uses that come within the specific natural uses named are open to different interpretations. But certain reasonable projections may be ventured.

Water "to quench thirst" is clear enough, but whose thirst may be quenched? Which purposes are household, and what cattle may be watered? In illustrating its exposition of the law on these points, the court said, as though it were intending to include all natural uses in the statement, that "he may consume all the water for his domestic purposes, including water for his stock." In this statement the court personalized the uses so that it seems it intended to restrict them at least to those uses of persons living on the proprietor's land.[7] Domestic purposes would seem to include such household and other purposes as water for drinking, cooking, washing, cleaning, bathing, sanitation purposes,[8] and possibly for fire protection and similar uses. It may be questioned whether the court, then or

[4] Evans v. Merriweather, *supra,* at 496; *statement reaff'd* in Bliss v. Kennedy, 43 Ill. 67 (1863). Both cases involved only artificial uses, but the court distinguished natural uses for the purpose of deciding what rules to apply.

[5] See Canal Trustees v. Haven, 11 Ill. 554 (1850), where a similar view was stated regarding an *artificial* use (water power). However, it is possible that, for *natural* use purposes, so long as the riparian proprietor remains on his own property, he could use all the water that flows to his water intake on his side of the stream without regard to the natural wants of the opposite owner.

[6] Evans v. Merriweather, *supra,* at 495.

[7] But recall earlier discussion of domestic-type uses supplied by cities, under Use of Water on Nonriparian Land. The language could also be interpreted to mean only his immediate household. It seems doubtful that it would include use in a rooming house, lodge, hotel, or motel for domestic-type uses by guests.

[8] But one might be held liable if such uses pollute the stream. See later discussion of pollution.

today, would consider uses such as lawn watering and home air-conditioning (or air-cooling) as necessary to existence.[9]

At the time when the court decided the *Evans* case, most people were farmers who kept a small number of livestock for home consumption, with perhaps a few for sale. There were few large commercial herds of cattle in Illinois at that time. Thus, it seems questionable whether the court meant to include large commercial herds in its statements. It would seem that the keeping of a large commercial herd of cattle is as much for the purpose of increasing one's prosperity as is the using of machinery, the only difference being that there is no substitute for water for cattle, while there is a substitute for water as a power source for machinery.[10]

In summary, the court in the *Evans* case apparently meant that, as a matter of law, use of water by an upper riparian proprietor to supply a natural want is a reasonable use (as against a lower proprietor) within the meaning of the reasonableness test there laid down. But some questions remain as to just what uses will be so defined.

Artificial uses. Any uses that are not "natural" are classified by the court as "artificial." They are uses "such only as, by supplying them, his [the riparian proprietor's] comfort and prosperity are increased."[11] The court specifically included in this category water used for irrigation and water used for propelling machinery. It also stated that manufactures only promote the prosperity and comfort of mankind, thus apparently classifying industrial uses as artificial uses.

As between natural and artificial uses, all natural uses are paramount. All natural use wants (needs) are to be satisfied before any riparian proprietor has a right to use any water for artificial uses. Any use for artificial wants that causes a natural want of a complaining riparian owner to remain unsatisfied, is unreasonable as a matter of law.

There are no particular preferences between different kinds of artificial uses. The law as laid down in the *Evans* case, with regard to artificial uses is as follows: After all natural wants along a natural watercourse are satisfied, the riparian proprietors may use the remaining water for artificial uses. This means that any particular riparian proprietor must, after satisfying his natural wants, allow enough water to flow on to satisfy the natural wants of all lower proprietors.[12] The rest of the water in the watercourse may be used for artificial purposes. But if there is not enough water for all proprietors to satisfy their artificial wants, the court said:

> [None has] a right to use all the water; all have a right to participate in its benefits.

[9] And, therefore, they might be classified as artificial uses. See the section following for a discussion of artificial uses.

[10] The court seems to have been thinking of this point when it said, "nor need the machinery which he employs be set in motion by steam." (Evans v. Merriweather, *supra*, at 496.)

[11] *Id.* at 495.

[12] "If he desires to use it for irrigation or manufactures, and there be a lower proprietor to whom its use is essential to supply his natural wants, or for his stock, he must use the water so as to leave enough for such lower proprietor." (*Id.* at 496).

Where all have a right to participate in a common benefit, and none can have an exclusive enjoyment, no rule, from the very nature of the case, can be laid down, as to how much each may use without infringing upon the rights of others. In such cases, the question must be left to the judgment of the jury, whether the party complained of has used, under all the circumstances, more than his just proportion.[13]

Thus, the court refused to say, as a matter of law, what is a reasonable use of the water as between artificial users. But, in the paragraph immediately following the above quotation, the court qualified the principle somewhat when applying it to the particular facts of the case. The court continued:

It appears, from the facts agreed on, that Evans obstructed the water by a dam, and diverted the whole into his well. This diversion, according to all the cases, both English and American, was clearly illegal.[14]

This statement qualifies the original statement of the court, at least to the extent of saying that the diversion of an entire stream by an upper owner for artificial uses is not a "just proportion," as a matter of law, and, therefore, is an unreasonable use. It could also be argued that the court might be willing to say the same thing where the use of more than a just proportion by an upper proprietor is clearly evident, thus leaving to the jury only the job of determining the exact extent of damage suffered by the complaining party.

The application of this area of the law has caused the greatest problem in determining the relative rights to water in the later cases. Thus, a close look at the context in which the court laid down this law is important. The facts are relatively simple.[15]

In 1834 a steam mill purchased by plaintiff Merriweather was erected on a six-acre tract of land through which a branch ran. The mill depended upon a well and the branch for water for running the steam engine. In 1836 defendant Evans erected another steam mill on another six-acre tract of land above and immediately adjoining the tract of land on which the first mill was erected. This mill also depended upon a well and the branch for water for running the steam engine. There was sufficient water in the branch for both mills until 1837, when a drought caused the branch to dry up to the extent that the upper mill could not run continually. An employee of the defendant erected a small dam across the branch and diverted the water into defendant's well, thereby causing the branch to go dry at plaintiff's mill. Plaintiff, as a result, was forced to rely entirely on water from his well for running his steam engine, and could only obtain enough therefrom to run his mill one day a week. After about four weeks of this state of affairs, plaintiff brought this suit and obtained a verdict of $150. There were no facts showing that the water was wanted for anything other than the purpose of running these two mills' steam engines, and for this purpose, it was converted into steam and entirely consumed.

[13] Evans v. Merriweather, *supra.*
[14] *Ibid.*
[15] *Id.* at 493 is an agreed statement of facts.

It appears that the relevant facts and propositions of law of the *Evans* case can be summarized as follows:

Facts

1. The parties to the suit were adjoining riparian proprietors, the defendant being the upper owner.
2. The uses involved were artificial uses and involved actual consumption of the water.
3. The action complained of was obstruction of the entire flow of the stream and diversion of the water so that none flowed on to the plaintiff.
4. The value of the defendant's property utilizing the water was somewhat greater than the value of plaintiff's property utilizing the water.[16]

Law

1. The use of the water of a natural watercourse is limited to a reasonable use.
2. Any natural use by a riparian proprietor is a reasonable use, as a matter of law.
3. Any artificial use made where all natural uses have not first been satisfied is an unreasonable use, as a matter of law.
4. As between different artificial uses, the test of reasonableness is whether or not, under all circumstances, each user is using his just proportion of the water available for artificial uses.
5. Where it is not clearly evident that a riparian proprietor is using more than his just proportion of the water available for artificial uses, under all the circumstances, it is for the jury to determine if his use is unreasonable and, if it determines his use to be unreasonable, to determine the extent to which the complaining riparian proprietors are damaged as a result of that unreasonable use.[17]
6. Where it is clearly evident that a riparian proprietor is using more than his just proportion of the water available for artificial uses, under all the circumstances, such use perhaps is an unreasonable use as a matter of law, and it is for a jury to determine the extent to which other riparian proprietors are damaged as a result of that unreasonable use.[18] The court held that at least the diversion of the entire flow of a stream was clearly unreasonable.

There are primarily four types of controversies that have arisen since the *Evans* case concerning the extent of riparian right: 1) actions by lower proprietors involving an alteration, by an upper proprietor, of the quan-

[16] Plaintiff purchased the lower mill for about $8,000. Defendant's mill was agreed to be worth about $12,000.

[17] Under modern practice a jury could be waived by the parties, and in cases where an injunction is requested, the court perhaps could make the determination of fact without a jury.

[18] Evans v. Merriweather, *supra.*

tity of water flowing to such lower proprietors; 2) actions by lower proprietors involving an alteration, by an upper proprietor, of the quality of water flowing to such lower proprietors; 3) actions by riparian proprietor involving his exclusive right to make use of, for specific nonconsumptive and non-hydraulic purposes, the water to which he is riparian; and 4) certain negative rights (such as the right not to have one's land overflowed). The controversies all have involved artificial uses.[19]

The controversies in the first two categories primarily involved the application of the last three propositions of law from the *Evans* case to fact situations that varied in one or more aspects from that case. The controversies in the third category primarily involved a determination of what exclusive nonconsumptive and non-hydraulic rights rest in a riparian proprietor by virtue of his location in relation to the water to which he is riparian. Each category will be discussed separately.

Alteration of quantity. Alteration of quantity can arise from a diminution or an increase of the flow.[20] Diminution may be accomplished by some type of obstruction, detention, diversion, or combination thereof. It may involve a use in which water is actually consumed, or a use requiring that the water be detained to be utilized. The cases seem to make a distinction between detention and diversion, according to the nature of the act involved in diminishing the quantity of water flowing to the lower proprietor. Either type of act may, however, involve an obstruction of the flow.

The case first making a distinction between these terms is *Plumleigh v. Dawson*,[21] decided just two years after the *Evans* case. In that case the defendant obstructed Crystal Lake outlet (a stream on which the defendant was an upper riparian owner, and plaintiff was the next adjoining lower riparian owner) by means of a dam across it.[22] Defendant cut a millrace into the dam and allowed a flow of water amounting to about three-fourths of the flow of the watercourse to run from the watercourse through the millrace, used it to propel his mill, and then returned the flow to the watercourse at a point below plaintiff's land. The facts indicate that there was still enough water left flowing in the watercourse to the lower owners for their natural uses, but that the potential use of the water for power purposes, in a manner similar to the use by the defendant, was lost to the plaintiff.

At the trial of the case, plaintiff's witnesses set plaintiff's damage at $500 on the basis of 1) loss of beauty of the stream, 2) reduction in sale value of plaintiff's property, and 3) loss of potential water power. The

[19] Except for the *Elgin* case, discussed earlier under Use of Water on Nonriparian Land, dealing with water use by a city for domestic, fire fighting, and sanitary purposes.

[20] Overflow may also be predicated on this right. See Flooding of Others' Lands, p. 55.

[21] 6 Ill. 544 (1844).

[22] Although the court did not specifically so state, the facts seem to indicate that the defendant owned land on both sides of the stream. It is not clear as to whether plantiff owned land on only one side of the watercourse or on both sides.

plaintiff had made no improvements on his premises for the utilization of water power and defendant's witnesses testified that it would cost the plaintiff more to make the water available as a water power than it would be worth in such use, and that, therefore, there was no injury to him. The trial court instructed the jury to the effect that if plaintiff had suffered no actual damages as the result of defendant's act up to the time of the commencement of the suit, he could not recover, and the jury subsequently found for defendant.

On appeal, the supreme court reversed, holding that, as a matter of law, the action would lie. The court called the act of the defendant a diversion. It stated the applicable proposition of law to be:

A watercourse begins *ex jure naturae,* and having taken a certain course naturally, cannot be diverted . . . so that all, through whose land it naturally flows, may enjoy the privilege of using it for culinary, agricultural, and hydraulic purposes, without adulteration, diminution or alteration, *except so far as it may suffer that diminution by detention for lawful uses above.*[23] (Emphasis added.)

The court then stated that every riparian proprietor has a right to use water for hydraulic purposes (water power), but he must allow it to pass from his land in its accustomed channel, and "it is, therefore, illegal to divert a watercourse, without returning the water to its natural channel before it reaches a riparian proprietor below."

The court continued by saying that, *for hydraulic purposes,* a stream cannot be severed into parts, that an upper proprietor has no right to take any specific proportion of the water as his which he can simply divert from lower riparian land, that the water must be allowed to flow to the lower proprietor in its accustomed channel, and that a riparian proprietor is allowed a reasonable use. The court also quoted from Justice Story's opinion in *Tyler v. Wilkinson* as follows: "There may be a diminution in quantity, or retardment, or acceleration of the natural current indispensable for the general and valuable use of water perfectly consistent with the use of the common right."[24]

Its language as a whole seems to indicate that the court was saying that there exists a right to diminish the flow of water by detention for lawful uses, but it is unreasonable and, therefore, unlawful, as a matter of law, to diminish the flow to the lower riparian proprietor *by running the flow of water around his land* instead of allowing it to return to the natural channel before it reaches him. This the court calls a diversion, and holds that it is unreasonable as a matter of law. The court expressly declared that there is no right of diversion, in this sense, of any specific portion of the water of a watercourse. It is the act of passing the water around the lower proprietor that the court apparently was complaining of and not simply the diminution of the flow. The court apparently did not decide

[23] Which "consists of the difference of level between the surface where the stream first touches his land, and the surface where it leaves it," or, put another way, it "consists in the fall of the stream, when in its natural state, as it passes through his land, or along the boundary of it." Plumleigh v. Dawson, *supra,* at 550.

[24] Tyler v. Wilkinson, *supra,* 4 Mason 400, 401; Fed. Cases No. 14, 312 (1827).

how much an upper proprietor can diminish the flow by actually consuming the water, or how much he can retard or accelerate the flow, or how long he can detain it in order to be able to realize his riparian rights of use (whether it be for consumption or for hydraulic purposes). It simply indicated that a certain amount of this type of thing may be done and still be consistent with the common rights of use of all the riparian proprietors.[25]

Thus, basically, it seems that the *Plumleigh* case stands for the proposition that, as a matter of law, it is unreasonable and, therefore, unlawful for an upper proprietor to run the water that he has diverted from a natural watercourse *around* a lower riparian proprietor's land. Moreover, the court held that an action would lie in such a case whether or not the complaining party could show actual damages (although he presumably would only be entitled to nominal damages if he could show no actual damage). It said that otherwise the unlawful act could ripen into a prescriptive right.[26]

It may be noted that the effect on the lower riparian owner often may be substantially the same whether the water is consumed or diverted around him. The court presumably felt, however, that as a matter of law it is unreasonable to divert water (after its use for power purposes) around lower riparian land (rather than to return it above such land) so as to prevent the possibility of its use by the lower owner.

The court's statements with regard to the right to diminish, detain, retard or accelerate the flow of the stream seem to be an affirmation of the propositions of law laid down in the *Evans* case.[27] Its holding simply adds one more activity with regard to the use of water that is unreasonable as a matter of law.

The language of the court in the *Plumleigh* case points up the problem of applying a rule of law to the use of water where the controversy involves one use that requires that the water be consumed (such as running a steam engine, in the *Evans* case), and another use that requires only the use of the weight or bulk of the water (such as for water-power purposes, in the *Plumleigh* case, or boating or swimming in the stream).[28] The utilization of the water for the first purpose means that it is no longer available for the other. And yet, uses that consume the water may be just as important as those that utilize its weight and bulk. Thus, there should be some sort of compromise between the two types of use that would allow water to be utilized for the former and still not destroy its utility for the

[25] It did not expressly deal with consumptive uses, but the above quotation was also employed in the *Evans* case and applied to such uses. (Evans v. Merriweather, *supra,* at 495.) As to the amount and degree, the *Evans* case states the law in this regard.

[26] Plumleigh v. Dawson, *supra,* at 551.

[27] See the summarized statement of the last three propositions of law of the *Evans* case under Artificial Uses, p. 28.

[28] But water-power uses generally involve detention of the water with a dam. If the detention occurs at times when the water is needed by lower owners, it may cause them as much damage as it would if it were consumed.

latter use. It is because of this attempt at compromise that the courts may be found saying the right to use the water of a natural watercourse belongs to the proprietors in common and is indivisible, but then, in the next breath, that there may be a diminution in quantity consistent with the use of the common right.[29] To assure that both types of use may be made of the water, the courts have protected the "common right" for nonconsumptive use purposes, and then have superimposed upon this protection a qualification that allows the other types of use to be made. Each use may cause some interference with the other, but it must not be such an excessive interference that it is unreasonable. In the obvious cases the court itself will say that the interference is unreasonable; in those less clear, it has held that it is within the province of the jury to make the determination.

With this insight into the physical problems behind the court's statements, the later cases in this area are more readily understood. Thus, in *Canal Trustees v. Haven,*[30] where the primary uses of the water by all proprietors were for nonconsumptive purposes, we have the court emphasizing the requirement that a riparian proprietor use the entire stream in its natural channel, since a severance would destroy the rights of all.[31] And in *Bliss v. Kennedy,*[32] where it was speaking of consumptive uses, the court said that the water must be divided proportionally according to the respective requirements of the parties.

In the *Canal Trustees* case, the court was faced with a problem analogous to that in the *Plumleigh* case. The trustees of the Illinois and Michigan canal were diverting all or most of the water from a watercourse at a point where they were riparian owners, and using that water to operate their navigation locks, after which the remaining water flowed on down the canal to return to the watercourse below the plaintiff riparian proprietors. The plaintiffs and defendants owned opposite lands on the watercourse. The court held this to be a diversion and that, as a matter of law, it was an unreasonable use and, therefore, unlawful whether or not any actual damage could be shown.[33]

In *Bliss v. Kennedy, supra,* the court was faced with the problem of allocating water between two woolen factories competing for the use of the water of a small stream, when during dry seasons there was insufficient water for both factories. Although both were steam mills that consumed the water, the court squarely faced the problem of finding a rule of law

[29] See Evans v. Merriweather, *supra,* at 495, and Plumleigh v. Dawson, *supra,* at 551, where each quotes the same language from Tyler v. Wilkinson, *supra* at 440 and 401, to this effect.

[30] 11 Ill. 554 (1850). There are three related opinions of the supreme court on this case, all of which affirm the law as expressed by the court in this case. 10 Ill. 548 (1849); 11 Ill. 554 (1850); 102 Ill. 177 (1882).

[31] But this statement may have been intended only to have reference to the limited water-power rights of a riparian owner who owns land on only one side of a stream, as against the opposite owner. See note 84 under Remedies, page 201, and also note 122, page 49.

[32] 43 Ill. 67 (1867).

[33] 10 Ill. 548 (1849).

that would allow the water of a stream to be used both for nonconsumptive hydraulic purposes and for uses that actually consume the water. The court said, at page 73:

Now, it has been always held, that priority of uses gives no exclusive right, and it is very difficult to provide any rule that shall exactly define the boundaries of rights claimed by upper and lower proprietors on the same watercourse. Adjudged cases, the most of them, relate to the use of water for a particular purpose, which, when that purpose is accomplished is returned to its natural channel. Here the water is actually consumed by converting it into vapor, so that it cannot be returned to its usual channel to flow on.

The court then formulated the following rule to be applied in this case where the water was being consumed:

That so far as the water is destroyed by being converted into steam, neither of these factories is entitled to its exclusive use, that it is to be divided between them as nearly as may be according to their respective requirements, that, if each factory requires the same quantity of water, it should be equally divided, but, while the water is incapable of being thus divided with mathematical exactness, if the jury should find that the upper factory has used more than its reasonable share, or has diverted the water after using it from its natural channel, or so corrupted it as to deprive the lower proprietors of its use to such a degree as to cause a material injury to the factory, it would be ground for damages, and ultimately for an injunction.

This rule is in line with the law of the *Evans* case with regard to consumptive use of water, and the law of the *Plumleigh* case with regard to the diversion of water that is not consumed. It appears to indicate that the *Plumleigh* decision (that in a *nonconsumptive* water-power use, "return waters" may not be diverted around lower riparian land) also would be applicable to the waters, if any, remaining after *consumptive* power use (or presumably any other consumptive use).

This rule also provides a specific example of the application of the rule of reasonable consumptive use — that is, if two woolen factories, as the only users of a stream, require equal quantities of water, the water should be equally divided, the jury determining whether an equal division has been made. This is the reasonable share of each factory. Or, using the language of the *Evans* case, this is its just proportion.[34]

It seems from the *Bliss* case, taken as the complete exposition of a definite proposition of law with respect to relative rights of use, that the jury should be allowed to hear evidence concerning the relative needs of the parties and the amount of water available in the stream, from which they would determine whether there was an excessive use of water. The problem often may become more complicated than the single 50-50 division mentioned in the *Bliss* case because of differing types of competing uses, varying sizes, locations, or conditions of the respective riparian lands, intervening additions of water from tributary streams, the seasonal nature of certain uses, variations in stream flow, and other reasons. Further complications arise if several riparian proprietors desire to make con-

[34] Evans v. Merriweather, *supra,* at 496.

sumptive use of the same watercourse or if several wish to use it for nonconsumptive purposes or to detain the water for later use. The question of rights of riparian proprietors not a party to the suit may also need to be considered. No cases involving these further problems have arisen in the Illinois courts.[35]

A case involving the withdrawal of water from a stream by a city was discussed earlier, under Use of Water on Nonriparian Land.[36]

A riparian owner has the right to have a watercourse to which he is riparian carry only such volume of water as may be collected by the drainage basin in which it flows, and another cannot unreasonably increase that flow by putting into it water that would not naturally flow there.[37] This is an alteration of quantity that could possibly interfere with a lower riparian owner's exercise of his rights. This is consistent with the apparent limitation concerning the removal of water from the watershed.[38]

Alteration of quality — general. Although the majority of the cases regarding water quality involve pollution, it also has been held that it is unlawful to unreasonably alter the water's temperature or accelerate or retard its flow. Such actions are often related to pollution.

One case, arising in the federal district court, has stated the Illinois law to be that a riparian owner, in his use of water, cannot heat it to the extent that the lower owner cannot use it for his riparian purposes.[39] In that case, the upper riparian owner used water from the stream for cooling his machinery, and discharged the hot water back into the stream. This kept ice from forming on the lower owner's ice fields. The court held that the upper owner's use of the water was unreasonable and not within his riparian rights because it unreasonably interfered with the lower owner's legitimate exercise of his riparian rights.[40]

In *City of Springfield v. North Fork Outlet Drainage District,*[41] an

[35] But see Batavia Mfg. Co. v. Newton Wagon Co., 91 Ill. 230 (1878); Biedler v. Sanitary District, 211 Ill. 628 (1904); and Indian Refining Co. v. Ambraw River Drainage Dist., 1 F. Supp. 937 (E. Dist. Ill., 1933) for later cases affirming the law of the earlier decisions.

[36] See discussion of the *Elgin* case thereunder, p. 20.

[37] See Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 18-20 (1934) regarding the discharge of well water into a stream. [The court cited Elser v. Village of Gross Point, 273 Ill. 230 (1906) regarding the diversion of drainage water across watershed lines. Other cases on this are discussed under Drainage, p. 139.] See also Shelby Loan and Trust Co. v. White Star Refining Co., 271 Ill. App. 266 (1933) for a decision to the same effect with regard to discharging well water into a lake and causing it to overflow. Except for the *Elser* case, each case also involved the question of pollution. See Pollution, p. 37.

[38] See What Is Riparian Land? p. 16.

[39] Sandusky Portland Cement Co. v. Dixon Pure Ice Co., 221 F. 200 (1915); certiorari denied, 238 U.S. 630 (1915).

[40] The court noted, however, that if such use had been reasonable the lower owner could not recover even though some injury resulted.

[41] 249 Ill. App. 133 (1928). Other cases have often stated that water cannot be unreasonably accelerated or retarded so as to damage lower riparian proprietors. (See, *e.g.,* Plumleigh v. Dawson, *supra,* at 551.)

Illinois appellate court held that it was unlawful for a drainage district to straighten and deepen the channel of a stream within its boundaries in a way that would accelerate the flow of water to the extent that polluting sewage and foreign matter, which otherwise would have settled out on upper land, would be carried along and pollute the source of a riparian city's water supply downstream.[42] The court held that this was true even though the polluting materials originated from a source off the lands in the drainage district.

As far as retardation of flow is concerned, no Illinois cases have had this problem at issue, although the Illinois courts, in stating the general rule with regard to water use, have said that there cannot be unreasonable retardation of the flow. Retardation of flow seems to be one factor to be considered in determining whether a particular use is unreasonable.[43]

Pollution. There have been numerous Illinois cases involving pollution, and several have been instituted by farmland owners or farmers.[44] Pollution of a body of water is an invasion of the rights of the riparian proprietors who suffer injury as a result, if it is considered to be unreasonable[45] or to constitute a nuisance.[46]

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[42] *Id.* at 145. The court held that legislation purporting to enable the district to straighten, deepen, etc. streams could not thereby enable it to contribute to the pollution of a stream to the injury of a lower riparian, without compensation. However, the court, at p. 147, distinguished between pollution and natural debris for this purpose.

[43] See Evans v. Merriweather, *supra,* at 495, quoting from Tyler v. Wilkinson, *supra.* The question of detention of water with a dam is considered later.

[44] There have been several cases in addition to those cited in this section. See, *e.g.,* the several cases cited under Measure of Damages, p. 197, and Injunction, p. 205. See also Panton v. Norton, 18 Ill. 497 (1857); Robb v. Village of La Grange, 158 Ill. 21 (1895); Libbra v. Mt. Olive, 29 Ill. App. 2d. 396 (1961); Friesland v. City of Litchfield, 24 Ill. App. 2d. 390 (1960); People v. Livingston, 331 Ill. App. 313 (1947); Phoenix v. Graham, 349 Ill. App. 326 (1953); Shelby Loan and Trust Co. v. White Star Refining Co. 271 Ill. App. 266 (1933); Cook v. City of Du Quoin, 256 Ill. App. 452 (1930); Kellum v. Village of Greenup, 265 Ill. App. 24 (1932); Rand v. Wilber, 19, Ill. App. 395 (1885); Mason v. Mattoon, 95 Ill. App. 525 (1900); City of Bloomington v. Costello, 65 Ill. App. 407 (1895); Gargac v. Smith-Rowland Co., 170 F. 2d. 177 (1948).

Also see the lower court cases described in Appendices B and C. Most of these involved pollution.

Some of the cited cases may involve pollution of ground water. See Percolating Groundwater *et seq.,* p. 130, for a discussion of this.

[45] See Tetherington v. Donk Brothers Coal Co., 232 Ill. 522, 525 (1908). See also Springfield v. North Fork Outlet Drain District, 249 Ill. App. 133, 149 (1928); Voss v. Chicago Sandorell Coal Co., 165 Ill. App. 565, 570 (1911); Sandusky Portland Cement Co. v. Dixon Pure Ice Co., 221 F. 200 (1915).

[46] See Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 191 N.E. 239, 241 (1934). Other nuisance cases are discussed under Injunction, p. 205.

For a case where both riparian rights and nuisances were considered, see City of Kewanee v. Otley, 204 Ill. 402, 417, 410-11 (1907).

In Fenwick v. Blue Bird Coal Co., 12 Ill. App. 2d. 464, 467 (1957) an Illinois appellate court said that one is liable for water pollution that injures others, without discussing any question of reasonableness or nuisance. But it cited as support two cases in which reasonableness or nuisance had been considered.

In a 1908 case involving the respective rights of two riparian owners along the same watercourse regarding water pollution caused by the upper owner's coal-mining activities, the court said:[47]

In a strict and highly technical sense any use of a stream of water may diminish the quantity or impair the quality in some infinitesimal degree, but it is not this sense in which the law assures the right of a riparian owner to the use of the stream. It would be of no avail to a landowner to give him such a right, for in turn the next lower riparian owner would have the same strict right to have the stream come to him in like condition, so that no one would have a right to do more than stand on the shore and see the stream flow by him. The right of each proprietor to use the stream is subject to a like reasonable right in other riparian owners, and each must submit to such reasonable use by his neighbor, so long as such use does not inflict substantial injury upon other owners who have a like right. When questions arise between riparian owners respecting the right of one to make a particular use of the water in which they have a common right, the right will generally depend on the reasonableness of the use and the extent of the detriment to the lower owner.

The court has said that a large city or industrial concern has no more right than an individual to cause pollution.[48] An injured proprietor may obtain a court injunction against pollution even though a large population or an important industry may be adversely affected because of interruption in the use of a sewage disposal system.

In some cases, Illinois courts have indicated that the injured proprietor may have the pollution or threatened pollution enjoined only when the injury to him as a result of the pollution is or is likely to be substantial. If it is nominal or immaterial injury, such as an occasional or intermittent pollution that causes little danger to health or reduction in the value of affected property, the injured proprietor may not be able to obtain an injunction to stop the pollution, but he may recover money damages to the extent that he is injured.[49]

The Illinois Supreme Court historically appears to have taken an especially strict view regarding the discharge of human and related wastes. In an 1894 case in which the court enjoined a village from constructing a system of sewers that would discharge into a stream running through the complainant's land, the court quoted from Gould on *Waters,* section 546, to the effect that an owner of land upon a stream below a city is entitled to an injunction against injury by the outflow of sewage even though the nuisance creates "inconsiderable damage." But the court did not go this far. It was content to hold that ". . . the sewage of a village of 1,600

[47] Tetherington v. Donk Bros. Coal Co., *supra,* 232 Ill. at 525.

[48] Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 18, 20 (1934); Johnston v. City of Galva, 316 Ill. 598, 602 (1925); Hayes v. Village of Dwight, 49 Ill. App. 530, 535 (1893), *aff'd* 150 Ill. 273.

[49] See Clark v. Lindsay Light and Chemical Co., 341 Ill. App. 316 (1950); Dunlap Lake Property Owner's Ass'n v. Edwardsville, 22 Ill. App. 2d. 95 (1959). See also Haack v. Lindsay Light and Chemical Co., 393 Ill. 367 (1946), regarding air pollution. Also see some cases discussed under Balancing the Equities, p. 209. See Estoppel, p. 215, for cases where the court refused to hold that a riparian owner was estopped from taking action against a polluter for allegedly giving his prior oral consent.

inhabitants discharged into a small stream, will materially pollute the water of the stream and render it unfit for domestic use, for at least a few rods below the point of discharge. . . . That such disposition . . . will create a nuisance *per se*, is a proposition too plain for serious question."[50]

In a later case in 1906, where the court enjoined a sanitarium from discharging sewage into a drainage ditch, the court said that:

It is a well known fact that sewage emptied into either a natural or artificial stream pollutes its water and renders it dangerous to public health and safety. . . . That equity will not enjoin the owner of a dominant estate when the increase of the flowage or pollution of water does not constitute a nuisance nor cause the owner of the servient estate any substantial injury or damage, cannot, in our opinion, be sustained. . . . In *Plumleigh v. Dawson*, 6 Gilm. 552, this court held that where a party is deprived of a substantial right the law will imply damage. . . .[51]

The case involved an artificial drainage ditch to which somewhat stricter or different rules of liability might apply as compared, for example, with pollution of a natural watercourse by a riparian landowner.[52] But the court noted that, in addition to the question of the pollution endangering the landowners along the drainage ditch, the ditch emptied into Lake Michigan "in such a way as to endanger the water supply of the village if allowed to become polluted, and this, of itself, would be sufficient to prevent appellant from using it for sewerage purposes."

In the former case, it did not appear whether the sewage was treated. In the latter case, the sanitarium's sewage was passed through tanks and filters before being discharged into the drainage ditch. With respect to this the court said:

The question as to the process through which the sewerage was to pass in order to purify it depends upon the manner in which that system is operated, the thoroughness with which the work is done, and that the sewerage should be thus continually purified in order to remove the danger . . . the methods pursued are so uncertain and dependent upon the manner in which they are operated that a court of equity should protect the appellees against the use of the ditch for carrying off such sewerage.[53]

With the advent of more modern methods of sewage treatment, it

[50] Village of Dwight v. Hayes, 150 Ill. 273, 277-279 (1894).

[51] Kenilworth Sanitarium v. Village of Kenilworth, 220, Ill. 264, 272-3 (1906).

[52] The court said, at p. 270, that the ditch was "not governed by the law applicable to natural watercourses, but was an artificial channel" (See later discussion of artificial watercourses.) But from its additional comments quoted above, it is not clear what different rules regarding pollution it might have applied if it were a natural watercourse.

This case was described in a later case as saying that the ditch "was not a natural watercourse and had been used solely to drain the lands west of the ridge, and that it would not be used for any other purpose except by the unanimous consent of all the parties who caused it to be dug." Kohl v. Chouteau Island Drain Dist., 283 Ill. 69, 78 (1918). Nevertheless, in a later case involving pollution of a natural watercourse, the court cited another case regarding an artificial drainage ditch for certain general principles which it applied. Barrington Hills Country Club v. Village of Barrington, 357 Ill. 18-19 (1934).

[53] Kenilworth Sanitarium v. Village of Kenilworth, *supra*, 220 Ill. at 273.

appears that the court has become somewhat less strict about such pollution; but it has added another ground for enjoining pollution in appropriate cases. In a 1934 case, where a village was enjoined from polluting a stream, the court said that "A private nuisance may be enjoined by a suit in equity or the party suffering damage and injury may proceed at law" and added with respect to the former case of stream pollution by a village and some other previous cases:[54]

While it is contended here that those cases must have involved raw sewage as distinguished from the efflux from a sewage treatment plant of modern design, sewage shown by this record to contain human feces, debris . . . and other filth remains sewage. The defendants in error, as riparian owners on a stream thus polluted, whether it be polluted once, twice, three times or more a season or for three or four per cent of all the days of each year, have a right to protection against such invasion of their property rights; and if the effluent is considered to be as pure as contended by the plaintiff in error, the defendants in error still have the other property right, which must be protected, to have the stream carry only such a volume of water as would be naturally collected by the drainage of the basin in which it flows.[55]

The court further said that:[56]

While some of these witnesses were of the opinion, from their observation of the creek and the conditions on the premises in question, that no nuisance was created, we agree with the chancellor that the decided preponderance of the evidence sustains the conclusion that the water was so polluted as to render it unfit for domestic use or for the drinking by domestic animals. The evidence also shows that an abnormal flow of water was caused by the plaintiff in error's waterworks, supplied by wells. . . . Raw sewage flowed from the by-passes directly into the creek when any considerable precipitation of rain occurred. While the treatment plant was shown to be modern and to be equipped with an Imhoff tank, yet it took out of the sewage only sixty to seventy per cent of the solids and no part of the liquids. This threw into the small creek the solid waste from the equivalent of thirty to forty per cent of the population of 2,850 inhabitants of the village of Barrington and the liquid waste from the entire population and the same percentages of waste from its industrial plants, such as creameries, cheese factories, etc.

A later case decided in 1946 involved the question of a nuisance but did not involve water. The court said that even though the invasion of a legal right had been established (in the trial court), a court of equity should not grant an injunction to protect such a right as a matter of course but should consider the circumstances and consequences and the equities

[54] Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 20 (1934).

[55] See also Shelby Loan and Trust Co. v. White Star Refining Co., 271 Ill. App. 266 (1933); Eckhart v. City of Belleville, 294 Ill. App. 144, 149 (1938). See Alteration of Quantity, p. 31, regarding such a right.

Here the village's water supply was pumped from wells and discharged into the stream through its sewage system. The court's discussion of this suggests the possibility of an additional and related ground for injunctive relief. That is, although a city may own riparian land along a watercourse it may be discharging sewage into it that has been collected from a large area embracing nonriparian lands. But this question does not appear to have been discussed or decided in the reported Illinois decisions. See Use of Water on Nonriparian land, p. 19, regarding related water-use questions.

[56] *Id.* pp. 16-17.

of the case. The court held that the lower court should not have granted an injunction where the alleged air pollution caused by a chemical plant was found to be inconsequential and to cause only nominal damage.[57] The court did not refer to the foregoing water pollution cases, although it noted that in another case of air and water pollution caused by a coal company it had said that an injunction will issue as a matter of course if the existence of a nuisance has been established at law. It held this statement to have been erroneous.[58]

The effect this case may have on future decisions of the Illinois Supreme Court regarding water pollution is problematical.[59] This case has been cited by one of the Illinois appellate courts in support of its decision in 1950 not to enjoin pollution of a stream by a chemical plant that was causing no monetary damage.[60] In 1959, another appellate court refused to enjoin a city from allowing its sewage to occasionally discharge through a sanitary sewer by-pass into storm sewers (one witness testified it had occurred twice in four years). This court similarly said that permanent injunctive relief on behalf of an individual must be based upon a showing of actual and substantial, not speculative or anticipated, injury (relying on a 1956 supreme court decision that did not involve water or a nuisance).[61] The court found that none of the sewage reached the lake that was claimed to be polluted.

Neither of these appellate court cases dealt with the question of: 1) under what circumstances the discharge of sewage or other polluting material into a watercourse might be enjoined on the ground that it increases the *amount* of water (one of the grounds of the 1934 supreme court decision discussed earlier), or 2) under what circumstances continuous discharge of untreated human wastes into a watercourse may be enjoined (which apparently was the issue in some earlier supreme court cases).

In any event it should be noted that an Illinois statute declares that, "It is a public nuisance to corrupt or render unwholesome or impure the water of any spring, river, stream, pond, or lake, to the injury or prejudice of others." Offenders may be fined not exceeding $100, and for a subsequent offense, fined a like amount, and imprisoned up to 3 months. If the offender is convicted, the nuisance may be abated by the sheriff or

[57] Haack v. Lindsay Light and Chemical Co., 393 Ill. 367 (1946); cited for this proposition in a later (non-water-pollution) case, Nichols v. City of Rock Island, 3 Ill. 2d. 531, 538 (1954). See also Ogilby v. Donaldson's Floors, Inc., 13 Ill. 2d. 305, 308 (1958).

[58] The court was referring to City of Pana v. Washed Coal Co., 260 Ill. 111 (1913).

[59] Its language that an injunction is not a *matter of right* especially may be used in an appropriate case. What effect the case may have on the question of "balancing the equities" is discussed later under that topic. In the 1934 decision regarding water pollution it had refused to balance the conveniences or equities. Barrington Hills Country Club v. Village of Barrington, *supra*. See p. 209.

[60] Clark v. Lindsay Light and Chemical Co., 341 Ill. App. 316, 319-321 (2nd Dist.).

[61] Dunlap Lake Prop. Owners Ass'n v. City of Edwardsville, 22 Ill. App. 95 (4th Dist.), *citing* Barco Mfg. Co. v. Wright, 10 Ill. 2d. 157.

other proper officer.[62] The court has cited a similar prior statute in a case where a city was held liable to pay damages to a farmer for polluting a natural watercourse that ran across his farm,[63] and in a case where pollution of a stream by a cemetery was enjoined.[64] In the former case, decided in 1925, the court said that the statute made it a public nuisance to corrupt or render unwholesome or impure the water of any stream to the injury or prejudice of others and that "a municipality has no greater right to commit a nuisance than has an individual."

The court has indicated that the pollution of a watercourse is not excused because others also are polluting the watercourse and contribute to its pollution load.[65] An appellate court has said that this is so even if others "contributed thereto or may be the chief offenders."[66]

In 1929 the General Assembly enacted a statute creating a Sanitary Water Board to control, prevent, and abate pollution of the streams, lakes, ponds, and other surface and underground waters in the state.[67] In 1951 this act was repealed and superseded by a similar act.[68] The 1929 act was replaced principally to bring the Sanitary Water Board within the requirements of the Federal Water Pollution Control Act for a state water pollution agency, and thus allow the state to secure the benefits of the federal act.[69]

As it presently exists, the Sanitary Water Board has the power to determine whether pollution exists in any of the waters of the state.[70]

> . . . no person shall throw, run, drain, or otherwise dispose into any of the waters of this state, or cause, permit, suffer to be thrown, run, drained, allow to seep or otherwise dispose into such waters, any organic or inorganic matter that shall cause pollution of such waters.[71]

"Pollution" is defined as:

> . . . such alteration of the physical, chemical or biological properties of any waters of the state, or such discharge of any liquid, gaseous or solid substance into any waters of the state as will or is likely to create a nuisance, or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or

[62] Ill. Rev. Stat., c. 100½, §§ 26(3), 29.

[63] Johnston v. City of Galva, 316 Ill. 598, 602 (1925).

[64] Barrett v. Mt. Greenwood Cemetery Ass'n, 159 Ill. 385, 391 (1896). See also Hayes v. Village of Dwight, 49 Ill. App. 530, 535 (1893), aff'd 150 Ill. 273; Thomas v. Ohio Coal Co., 199 Ill. App. 50, 57 (1916); Voss v. Chicago Sandoval Coal Co., 165 Ill. App. 565, 568 (1911).

[65] See Barrett v. Mt. Greenwood Cemetery, 159 Ill. 385, 390 (1896); Barrington Hills Country Club v. Village of Barrington, *supra,* 357 Ill. 11, 19 (1934); City of Kewanee v. Otley, 204 Ill. 402, 412 (1903); Thomas v. Ohio Coal Co., 199 Ill. App. 50 (1916); Shelby Loan Co. v. White Star Refining Co., 271 Ill. App. 266 (1933).

[66] City of Springfield v. North Fork Outlet Drainage District, 249 Ill. App. 133, 149 (1928).

[67] Ill. Rev. Stat., c. 19, §§ 129 to 145. *Repealed by* Ill. Laws, 1951, § 18 at 1462.

[68] Ill. Rev. Stat., c. 19, § 145.1 to 145.18.

[69] See *Id.* §§ 145.1, 145.4, 145.6, 145.19 to 145.22.

[70] *Id.* § 145.6 (a).

[71] *Id.* § 145.10.

other legitimate uses, or to livestock, wild animals, birds, fish or other aquatic life.[72]

"Waters of the state" are defined as:

. . . all accumulations of water, surface and underground, natural or artificial, public or private or parts thereof, which are wholly or partially within, flow through, or border upon this state or within its jurisdiction.[73]

The Board is authorized to hold public hearings and make findings of fact and determinations with respect to violations of the statute or the orders issued by it. It may order discontinuance of pollution, specifying the conditions and time within which the discontinuance is to be accomplished, and it may institute legal proceedings to compel compliance with the statute. It may make such investigation as it deems advisable and shall cause an investigation to be made upon receipt of information indicating a possible violation.[74]

The Supreme Court has held that this act does not preclude individuals from directly taking legal action against pollution of a stream which causes a nuisance without consulting the Board.[75] And in a 1934 case it held that a permit to discharge the efflux of a sewerage system into a stream did not bar a riparian owner from obtaining an injunction against the permittee to prevent such discharge.[76] But an appellate court held that where alleged pollution was shown to have caused no more than speculative damage it would not enjoin it, noting that such cases may be brought to the attention of the Board which has expert engineering facilities and is empowered to seek the abatement not only of pollution that causes a nuisance but of conditions that are "likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety, and welfare."[77]

It is the duty of the Board to advise, consult, and participate with state and federal agencies, political subdivisions, industries, and affected groups, to encourage the formation and organization of groups or associations of water users for the prevention and abatement of pollution, and to

[72] *Id.* § 145.2 (a).

[73] *Id.* § 145.2 (i).

[74] *Id.* § 145.6 (a), (b), (c).

[75] Ruth v. Aurora Sanitary District, 17 Ill. 2d. 11, 158 N.E. 2d. 601, 605 (1959).

[76] The court said that the statute did not enable the Board to authorize an encroachment upon riparian rights, and added that this was especially true where the permit itself provided that the authority given "does not in any way release the permittee from any liability for damage to person or property caused or resulting from the installation, maintenance, or operation of the sewerage system." Barrington Hills Country Club v. Village of Barrington, 357 Ill. 11, 21-22.

Also note that the statute declaring water pollution to be a public nuisance and providing for penalties and its abatement states that "it shall be no defense to any proceeding under this section, that the nuisance is erected or continued by virtue or permission of any law of this state." Ill. Rev. Stat., c. 100½, §§ 26, 29. See Prior Determination by Administrative Agency, p. 216.

[77] Dunlap Lake Prop. Owners Ass'n, Inc. v. City of Edwardsville, 22 Ill. App. 2d. 95 (1959). Also see City of Murphysboro v. Sanitary Water Board, 10 Ill. App. 2d. 111, 114 (1956).

collect and disseminate information relating to water pollution and its prevention, control, and abatement.[78]

The statute prohibits persons from undertaking the following activities without first securing a permit from the Board:[79]

1. Construction, installation, modification, or operation of any sewage works.
2. Increase in volume or strength of any wastes.
3. Construction, installation, or operation of any industrial or commercial establishment that would cause an increase in the discharge of wastes directly into the waters of the state or would otherwise alter the physical, chemical, or biological properties of any waters in any manner not already lawfully authorized.
4. Construction or use of any new outlet for the discharge of any wastes directly into the waters of the state.

The Board is empowered to issue, continue in effect, deny, revoke, or modify any permit when, after hearing, it determines that such action is necessary to carry out the provisions of the act.[80] Its determinations may be reviewed under the Administrative Review Act.[81]

It is the duty of the Attorney General to bring an action at the request of the Board to enjoin any violation of the act or of the orders of the Board.[82] Violators of the statute or of the orders of the Board are liable to a penalty of up to $500 and an additional fine of $100 a day so long as the violation continues. They also may be imprisoned for 30 days in the county jail.[83]

The statute also provides that after consultation with the Department of Conservation, the Board shall bring actions, through the Attorney General, to recover the reasonable value of fish or aquatic life destroyed by pollution resulting from violation of the act or the Board's orders thereunder.[84]

The Sanitary Water Board Act appears to give the Board broad powers to control pollution. Any person who believes his rights are violated by pollution may apply to this board for relief. Such action is more expedient than court litigation, and the problem is handled by experts rather than by a jury or judge who may not be familiar with the problems of pollution and its control.

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[78] ILL. REV. STAT., c. 19, § 145.6 (d).

[79] *Id.* § 145.11. But sewage works that receive only domestic or sanitary sewage from a building occupied by 15 persons or less are exempt.

[80] *Id.* § 145.6. C. W. Klassen, Technical Secretary of the Board, in a paper "Sanitary Water Board Progress Report," presented at the 1962 annual meeting of the Illinois Association of Sanitary Districts, Springfield, said that during the past fiscal year 734 permits had been issued.

[81] *Id.* § 145.9.

[82] *Id.* § 145.14.

[83] *Id.* § 145.13.

[84] *Id.* § 145.13(b). See the *Sycamore Preserve Works* case in Appendix B for an example of the Board's activities under this provision. In the paper presented in 1962, *supra,* C. W. Klassen stated that there were 46 emergency investigations regarding fish kills during the past year, resulting in the filing of $105,000 damages for payment to the Fish and Game Fund in the Department of Conservation.

The Board's members include the directors of the Departments of Public Health, Agriculture, Conservation, and Public Works and Buildings, and two members appointed by the Governor to represent industrial interests and municipal governments. The Chief Sanitary Engineer of the Department of Public Health serves as the Board's technical secretary.[85]

The Board has the responsibility of preparing a general comprehensive plan for the abatement of existing pollution and prevention of new or imminent pollution.[86] It may conduct research to discover economical and practical methods of preventing pollution, or cooperate with other public or private agencies in this regard.[87]

The Board, in practice, works closely with active sanitary districts organized throughout the state under various authorizing acts,[88] although the Board is not authorized to operate in the area of the Metropolitan Sanitary District of Greater Chicago.[89]

The Board has followed the policy of not issuing permits for new sewer systems or additions to industrial waste-producing facilities unless adequate treatment exists or is assured. Also, it initiates investigations on the basis of complaints. Pollution abatement has been accomplished through the Board's contacts with individual municipalities and industries. It makes periodic inspections and receives operational reports regarding works for which permits have been issued. It also has an operator's certification program, holds regional and state conferences, and conducts training courses for personnel of sewage-treatment works.

In the absence of voluntary compliance, the Board holds a hearing and usually issues an order giving a specific time in which the pollution shall be abated. In some instances it has gone to the courts to secure compliance with its directives.[90] But it was reported in 1956 that around 90 percent of the cases of pollution coming to the attention of the Board have been remedied voluntarily.

It has been estimated that in 1956 about 94 percent of the Illinois population served with sewers was tributary to treatment works, and about 75 percent to 80 percent of the industrial wastes were being treated. The Board members feel that they are operating under a very workable law.[91]

Ninety-five percent of the population having sewers was said by the

[85] *Id.* §§ 145.3 to 145.4.

[86] *Id.* § 145.6(d)4.

[87] *Id.* § 145.4 (g).

[88] See Appendix G for a list of such districts.

[89] See ILL. REV. STAT., c. 19, § 145.17 regarding existing sanitary districts with one million or more population.

The Attorney General has expressed the opinion that the Sanitary Water Board has general jurisdiction over Lake Michigan but that it is not authorized to exercise any jurisdiction in cases where the pollution originates within the territory of the Chicago Sanitary District. OPS. ATT'Y GEN., 1956, at 108.

[90] It was active in each of the pollution cases reported on questionnaires sent to trial courts. See Appendix C.

[91] Based on letter received from C. W. Klassen, technical secretary to the Board, dated Oct. 25, 1956.

Governor to be tributary to treatment works on October 8, 1959.[92] The Board's technical secretary reported this had increased to nearly 98 percent by October, 1963, and that 77 percent of the Illinois population was then being served by sewers. Although a number of problems remain, including attainment of more adequate treatment by some polluters,[92a] the Governor's statement asserted that "Illinois has pollution control laws adequate to cope with its problems" and that "in this field of activity lies the greatest potential for making water available through its reuse." He added that the Sanitary Water Board's objectives are served by the following guiding principles:

(1) The utilization of our Illinois streams based upon their ability to assimilate wastes, (2) the consideration of the physical, chemical, biochemical, biological, and bacteriological condition, in addition to the hydrologic factors in determining the quality of the outlet watercourse, (3) the recognition that no single standard of quality is applicable to all waters of the State, and therefore, no single standard for treatment of sewage or industrial wastes is applicable to all waste-treatment problems, and (4) the recognition of the economics involved in the treatment of wastes consistent with the usage of the receiving stream.

The State Mining Board in the Department of Mines and Minerals has jurisdiction over pollution from oil and gas field development.[93] The authority of this Board and certain other agencies or local units of government to regulate pollution is considered later.

Ownership of bed. To the extent that riparian landowners or others may own the bed of a watercourse, they may have certain exclusive rights of usage as described in the next section. Hence, it is important to know whether or to what extent riparian landowners also own the bed of the watercourse.

In an early case, the court held that a grant bounded by a stream of water conveys the land to the center thread of the current.[94] It said it was adopting this view on the basis of the common law of England,[95] and held that it is true both of grants by the government and by individuals.[96] (Of

[92] See pp. 59-62, *Water Resource Activities in the United States: Views and Comments of the States,* Select Committee on National Water Resources, U. S. Senate. Comm. Print No. 6 (1961).

[92a] In his 1962 paper, *supra,* C. W. Klassen stated: "Getting sewage treatment plants constructed is one thing — another is to have these facilities properly operated . . . Based on a number of visits and upon 569 observations of plant effluents, 61 percent were satisfactory; 18 percent were of questionable quality; and 21 percent were definitely unsatisfactory at the time of observation and sampling." He qualified this by recognizing that "Grab samples are often not truly representative but these do give an indication of efficiency of plant operation." He added that "This has emphasized the need for special effort on the part of the Sanitary Water Board to secure more efficient treatment works operation. The greatest handicap toward fulfilling this desire is lack of personnel."

[93] See ILL. REV. STAT., c. 104, § 67. See Other Departments, Boards and Commissions, p. 149, Local Governmental Units, p. 153, and District Organizations, etc., p. 158.

[94] Middleton v. Pritchard, 4 Ill. 510 (1842).

[95] *Id.* at 520.

[96] *Ibid.*

course, if the riparian landowner owns the bordering lands on both sides of a stream, he generally would own the bed all the way across it.)

The Illinois court apparently has not clearly defined what it has meant by the "thread" of a stream. In one case it used the terms "middle thread of current," "center thread of current," and "center of current."[97] In another case it used the terms "middle thread of current" and "middle of the channel."[98] It also has used the terms "center thread,"[99] the *"filum aquae,"*[100] and the "middle of the main navigable channel."[101] Courts in other states apparently have generally used "thread" to refer to the middle of the stream when the water is in its natural and ordinary stage and medium height.[102]

In the case mentioned first above, a separate opinion by Chief Justice Wilson[103] maintained that a grant bounded by a river should not include the unsurveyed islands between the shore and the center thread of the stream, and he dissented from the majority opinion to that extent. His dissent was, at least in part, later affirmed by the court in *Davis v. Haines.*[104] The court held that, although islands appearing between the mainland and the middle thread of a stream belong to the owner of the adjacent mainland, those that were separately surveyed and sold by the government as independent tracts do not.[105]

Later cases qualify the statement of the early court, and indicate that a grant bounded by a watercourse is *presumed* to include the land under the water.[106] If a contrary intention appears, a different result will be reached, for the banks, shore, and bed of a stream may be divided and conveyed separately as may any other land.[107] But, if no other intention appears, the stream is construed to be a monument, and the grantee of land along one side of a stream acquires ownership of the bed to its center.[108]

[97] Middleton v. Pritchard, 4 Ill. 510, 520 (1842); Peoria v. Central Nat'l Bank, 224 Ill. 43, 79 N.E. 296, 298 (1906).

[98] Fuller v. Shedd, 161 Ill. 462 (1896).

[99] Sikes v. Moline Consumers Co., 293 Ill. 112 (1920).

[100] Davis v. Haines, 349 Ill. 622, 182 N.E. 718, 722 (1932).

[101] Davis v. Haines, *supra;* Albany Bridge Co. v The People, 197 Ill. 199, 204 (1902).

[102] 11 C.J.S., *Boundaries,* § 33; 8 Am. Jur., *Boundaries,* § 28.

[103] Middleton v. Pritchard, 4 Ill. 510, 522 (1842).

[104] 349 Ill. 622 (1932).

[105] From Chief Justice Wilson's opinion (Middleton v. Pritchard, *supra*), it is clear that he was referring only to those islands that had not yet been surveyed, but would be when the government survey was finished.

[106] People v. Economy Power Co., 241 Ill. 290, 318 (1909); Piper v. Connelly, 108 Ill. 646, 654 (1884); Rockwell v. Baldwin, 53 Ill. 19, 22 (1869).

[107] Sikes v. Moline Consumers Co., 293 Ill. 112, 122 (1920); Rockwell v. Baldwin, *supra* at 23; People v. Board of Supervisors, 125 Ill. 92, 17 N.E. 147, 153 (1888).

[108] Piper v. Connelly, 108 Ill. 646, 654 (1884). A monument can be a stream, rock, tree, or other identifiable object designated in a deed to describe a corner or boundary of the land conveyed. As a monument, the watercourse controls over courses and distances stated in the deed. *Ibid.* See also Carter Oil Co. v. Delworth, 120 F. 2d 589 (1941).

The possible effect of meander lines on bed ownership is considered later, under Navigable Waters, p. 60.

If land is platted and only a river boundary is shown between the plat and the stream, the presumption that the grantor intended to convey to the middle of the stream is effective, but if the plat shows both a river boundary and a separate and different plat boundary, it is presumed that he intended to convey only to the plat boundary.[109] So, where a bordering landowner, by virtue of a plat, laid out lot lines separate from the shorelines of the river on which his land bordered, he retained title to the land between the lot lines and the center thread of the river, when he conveyed the lots.[110]

The language of a deed conveying property bounded by a stream can overcome the presumption that the grantee of the bordering land also acquires the bed of the stream.[111] For example, where a deed for a tract of land situated on a stream located the boundaries "to the west side of Cedar Creek, thence down the west line of said creek . . . ," the boundary line was the west bank of the stream and excluded the bed.[112] The court, in this case, laid down the law on the subject as follows:

> It is a familiar principle, that the proprietor of land situated on a river or stream of water not navigable is presumed to own to the center thread of the stream. It is, however, but a presumption, for one man may own the bed of such a stream and another may own the banks, and where, in a deed conveying land, the boundary is limited to the bank of the stream instead of bounding it on or along the stream, the presumption must fail. The party must be controlled by the terms of his deed.[113]

If there is more than one channel in a watercourse, the bordering owner owns to the center thread of the main channel.[114] One who owns an island in a river, without owning the bordering land on either side, owns to the middle thread of the stream on each side of his island, since two *"fila aquae"* are established, and the opposite bordering landowners own only to the middle thread of the channel between them and the island.[115]

The same rules relating to ownership of lands bordering on streams apply also to boundaries of a town bordering on a stream. If nothing appears to restrict the margin to the bank, the boundary extends to the middle of the channel. Thus, a town that bordered on the Mississippi was held to be entitled to assess taxes on an island opposite it and on the town side of the main channel.[116]

Parts of watercourse to which rights attach. If a riparian owner owns the banks and bed[117] of a watercourse, he has all of the rights of use of the water while it is over this land, as well as of the land itself.

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[109] Sikes v. Moline Consumers Co., *supra,* at 124.
[110] *Ibid.*
[111] Braxon v. Bressler, 64 Ill. 488 (1872); Piper v. Connelly, *supra.*
[112] Rockwell v. Baldwin, 53 Ill. 19 (1869).
[113] *Id.* at 22.
[114] Davis v. Haines, *supra,* at 629.
[115] *Ibid.*
[116] Albany Bridge Co. v. People, 197 Ill. 199 (1902).
[117] The bed of a river is that part between the banks worn by the regular flow of the water. Haigh v. Lenfesty, 239 Ill. 227 (1909).

However, if the ownership of these areas is divided, the rights are also divided, as discussed below.

Exclusive rights based upon bed ownership. The ownership of the bed of the stream, without more, carries with it the exclusive right to go upon the water over the portion of the bed owned, the exclusive right to hunt and fish over it[118] and to take mussels from it,[119] the exclusive right to take sand, stone, and gravel from it,[120] and the exclusive right to take ice from it.[121] Such rights, however, must be exercised so as not to violate the rights of upper and lower riparian owners with respect to the obstruction, diminution, pollution, or increase of the flow of the water.[122] Also, as noted later under Navigable Waters, the court has said that fishing rights are exclusive to the bed owner "unless restricted by some local law or well established usage of the state where the premises may be situate[d]."[123]

The riparian owner of bordering land may have a variety of water-use rights that may alter the quantity or quality of the water, as described earlier. These rights may go with the ownership of the bordering land without ownership of the bed. However, since the use of the water often requires that the riparian owner go directly upon the bed of the stream or upon the overlying water, it seems that the effectiveness of the right is greatly diminished if the riparian owner does not also own the bed or at least have permission to go upon or above it for the utilization of his right.[124] Thus, many riparian rights, to be effective, depend upon the ownership of both the bordering land and the bed of the watercourse, or of a right to go upon or above the bed.[125] This problem is minimized, how-

[118] Schulte v. Warren, 218 Ill. 108, 123 (1905). See also Wilton v. Van Hessen, 249 Ill. 182, 184, 189 (1911) regarding a pond. But see the limitation on the right to take fish as discussed in the section on state jurisdiction over natural watercourses, p. 109.

[119] See Ops. Att'y Gen. 470 (1903-1904). See Hubbard v. Bell, 54 Ill. 110 (1870) regarding logging.

[120] Braxon v. Bressler, *supra;* Sikes v. Moline Consumers Co., *supra.*

[121] Piper v. Connelly, 108 Ill. 646 (1884) (here "the defendants trespassed upon the plaintiff by cutting ice beyond the center of the stream." p. 655); Washington Ice Co. v. Shorthall, 101 Ill. 46 (1881); Village of Brooklyn v. Smith, *supra.*

[122] See Schulte v. Warren, 218 Ill. 108, 122 (1905). See also Canal Trustees v. Haven, 11 Ill. 554 (1850) where the court said that a riparian landowner had no right to build a dam across a stream if he owned land only on one side of it.

[123] Beckman v. Kreamer, 43 Ill. 447 (1867) quoted in People v. Bridges, 142 Ill. 30, 43 (1892) and Schulte v. Warren, 218 Ill. 108, 123 (1905). Each case involved a lake, but the court's language suggests such exceptions also may apply to streams.

[124] See in this regard Leonard v. Pearce, 348 Ill. 518 (1932) discussed under Lakes and Ponds, p. 77, where much of the bed of the lake was not owned by the riparian landowners.

[125] This is particularly true if the construction of a dam or other detention or diversion device is necessary to the utilization of the water for the particular use desired. And even if a riparian landowner owns the bed to the center of a stream, he may need the consent of the opposite landowner to build a dam across the other side. See note 122, *supra.*

It should be noted that certain other riparian rights, as well as certain limitations, are unique to riparian proprietors on navigable waters, as is discussed in the later section on navigable waters.

ever, by the fact that as a general rule riparian landowners own the bed of a watercourse to its center, or all the way across it if they own the land on both sides, as noted earlier.

The riparian landowners also have the right to any "accretions" that form along the shore.[126] This is true throughout the time they are forming even though they are entirely covered with water while they are forming.[127]

Prescription

Water rights may also be acquired or lost by "prescription" if water is used adversely to others for a period of at least 20 years.[1] The problem lies in determining when there is adverse use by or against a riparian owner. It is clear that there is an invasion of a riparian right if, without any contract or grant, an upper riparian proprietor diverts an entire stream to his own use for "artificial" use purposes, leaving none to the lower owner for his existing needs.[2] Such an invasion of rights clearly comes within the requisites of adverse user, and after such an act has been continued for a period of over 20 years, the lower owner ordinarily would be estopped from asserting his right to prevent such use.[3] Also riparian rights may be obtained as an incident of riparian land gained through adverse possession for the prescriptive period,[4] although the rights acquired generally would be limited to the ordinary riparian rights incident to such land.[5]

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[126] Accretions, alluvium, and alluvion are all the same. They are a gradual increase of land by imperceptible accumulation of land by natural causes. They may be caused by a combination of natural and artificial conditions, but the riparian owner himself cannot create the artificial conditions causing the accretion and still claim title to them. Brundage v. Knox, 279 Ill. 450 (1917).

[127] Bellefontaine Co. v. Niedringhaus, 181 Ill. 426 (1899). Thus, if the bordering land is under adverse possession, so too are the forming accretions, and when title in the bordering land is eventually acquired by adverse possession, it also is acquired in the accretions. *Ibid.* See also McCue v. Carlton, 399 Ill. 11 (1948).

It should be noted that by erosion (the opposite of accretion) the owner of the bed apparently gains the land that is inundated while the bordering landowner loses it. But in the case of "avulsion," where a considerable tract of land is, by the violence of the stream and in consequence of its cutting a new channel, separated from one tract of land and joined to another but in such a manner that it can still be identified, the boundary line does not change. See Bellefontaine Co. v. Niedringhaus, *supra.*

[1] Indian Refining Co. v. Ambraw River Drainage District, *supra* at 938, citing Ballard v. Struckman, 123 Ill. 636, as Illinois authority; Wills v. Babb, 222 Ill. 95 (1906); Willis v. Rich, 30 Ill. 2d 323 (1964). See also Ill. Rev. Stat. Annot., c. 83, § 1 and notes thereunder. Certain exceptions apply for the benefit of the state, minors, insane persons, absent military servicemen, and others. See § 8 *et seq.* In certain instances, 7-year color-of-title provisions might apply. See § 4 *et seq.*

[2] See also, with respect to the overflow of another's property by the construction of a dam, Ballard v. Struckman, *supra.*

[3] Assuming the requirements described below are met. See Mauvaisterre Dist. v. Wabash Ry. Co., 299 Ill. 299, 309 (1921) regarding the diversion of a channel for drainage purposes.

[4] See Watts v. Parker, 27 Ill. 224 (1862). See also Bellefontane Co. v. Niedringhaus, 181 Ill. 426 (1899), where the court held that an inundated accretion to land is under adverse possession if the land is under adverse possession.

[5] *Ibid.*

However, where the claim is to the use of a portion of the water by one riparian owner against another, if the use is not sufficiently open, notorious, and visible to apprise him that a use in excess of one's riparian rights is being made, it probably is not sufficient to gain a prescriptive right against him.[6] The owner of the right must acquiesce in the adverse use. But if the claimant's possession is permissive,[7] it cannot ripen into a prescriptive right. The acts necessary to constitute prescriptive use depend, to some extent, on the nature and locality of the property, the use to which it may be applied, and the situation of the parties.[8]

It seems that the use of relatively small amounts of water by other riparian owners could not ripen into a prescriptive right unless the person against whom the prescriptive right is claimed was, or should have been, aware that the use was an invasion of his riparian rights. Just how extensive the use must be before it would be adverse and visible to a riparian owner, in the prescriptive sense, is difficult to say. Recall that in *Evans v. Merriweather, supra,* the supreme court held that the diversion of the entire flow was clearly unlawful. In *Plumleigh v. Dawson* the court apparently felt that diversion of three-fourths of the flow of a stream by an upper owner around the land of a lower owner was sufficiently visible and clearly an invasion of other riparian rights that could ripen into a prescriptive right as against the lower owner.[9]

If the use of the water of a natural watercourse is by a riparian owner and such use is not in excess of what he is entitled to by the just proportion test (subject to the domestic use preference),[10] it could never ripen into a prescriptive right because it is not an invasion of another's right. The amount of water he may have a right to use at a later date might be cut down by the exercise by another riparian owner of his riparian rights, but this is simply because the measure of his right is changed by addition of new uses, and not because the new user is now attempting to reacquire a property interest that he had previously not claimed because of acquiescence in the adverse claim of another. Thus, it would seem that a prescriptive right to use water generally can only be gained if such use of water is in excess of the adverse user's own rights of use to the extent that such use is noticeably adverse and openly visible to the persons against whom such a right is claimed, and other requisites for perfecting a prescriptive right have been fulfilled.

[6] See Dempsey v. Burns, 281 Ill. 644 (1917); McClellan v. Kellogg, 17 Ill. 498, 503 (1856).

[7] Acquiescence is inaction during the performance of an act by another, in contrast to such acts as a lawsuit or physically attempting to prevent the adverse use. It should be distinguished from avowed consent, which gives *permission* to do the act, and open discontent or opposition, which indicates the opposite of acquiescence. In Leonard v. Pearce, 348 Ill. 518 (1932), a riparian owner permitted others to use his area of lake for hunting and fishing purposes. This was held not adverse in the sense that it would allow a prescriptive right to arise, but rather it was permissive.

[8] Gochenour v. Logsdon, 375 Ill. 139 (1940).

[9] 6 Ill. 544 (1844). See the discussion of this case under Alteration of Quantity, p. 31.

[10] See Artificial Uses, p. 28, for an exposition of this test.

It is hard to say how much of the time the use of varying amounts of water must be adverse to others' riparian rights to meet the requirement of "continuous" adverse use during the prescriptive period. Seasonal uses such as irrigation further complicate the continuous use requirement.

Developed or Added Waters

As noted later, a watercourse may still be considered a natural watercourse even though it has been artificially improved or altered. Certain rights in developed or added waters and their transportation will be considered here.

In *Druly v. Adam,*[1] the plaintiff sued for damages for the loss of water power resulting from defendant's diversion of the water and returning it below plaintiff's mill. The plaintiff's mill was situated on the Des Plaines River below the lock system of the Illinois and Michigan Canal between Lockport and Joliet, Illinois. The canal commissioners had executed an earlier agreement with plaintiff's predecessors in title, authorizing the commissioners to divert water from the Des Plaines River above the canal locks into the canal for the purpose of operating the locks, returning the unused portion of the water to the Des Plaines River below the locks but still above the point on the river where the plaintiff's mill was located. The agreement stipulated diversion only for the purposes of navigation through the locks.

After the agreement had been executed, the so-called "deep cut" was made at the summit of the Illinois and Michigan Canal by the City of Chicago, as agent for the state, thus considerably increasing the flow of water from Lake Michigan into the canal and the Des Plaines River, ultimately reaching the point where the plaintiff's mill was located. The canal commissioners subsequently executed an agreement with the defendant in this case, allowing him to locate on the canal at a point below where the water from the deep cut entered the river. The defendant drew water for his operations at the rate of about 7,000 cubic feet per minute and discharged it into the Des Plaines River at a point below the plaintiff's mill, instead of above it as had previously been done.

The plaintiff brought a suit for damages and the defendant defended on the ground that his operations took no more water than the increase caused by the "deep cut," and that the plaintiff had no claim to the added water since his claim depended upon its being waters of a natural watercourse to which riparian rights attach. The court refused to recognize the defendant's defense, saying that the purpose in making the improvement at the summit level of the canal was to procure water for the purposes of navigation. The water was effectively abandoned for any other purpose when it was returned to the river. The court indicated that it might entertain the view that:

> . . . where, by the accomplishment of a single and entire work, water is both added to and diverted from a stream, a lower riparian proprietor cannot com-

[1] 102 Ill. 177 (1882).

plain, provided the same amount and quality of water shall continue to flow to him after as before. The work is regarded as a single act, and its ultimate result, in that view, whether injurious or beneficial, is alone considered. This view is, however, manifestly inapplicable in an action at law, where the party adding the water, in a legal point of view, abandons it, so that the lower riparian proprietor has a legal right, technical though it may be, to have the added water flow down over his land as a part of the waters of the stream . . .[2]

By this language the court has suggested that there could be a mixture of natural and added water in a natural watercourse, and that the amount of water added might be later removed by someone who had made an improvement with this purpose in mind and who had retained sufficient control over the waters to prevent their abandonment to the use of lower riparian proprietors. This would allow a user to utilize a natural watercourse as a conduit by which his water could be conveyed from his source of supply to the point where it was to be used. But the court did not indicate what specific action would be required to retain legal control over the added water for such purpose. In holding that no such right had been retained in this case, the court noted that the action relative to the discharge of the water into the river and its removal therefrom were not concurrent acts, nor parts of a single improvement, being disconnected in time and in purpose. The court noted that the defendant's ". . . water power was obtained by him from the Board of Water Commissioners long subsequent to the deepening of the Summit level, and, for ought that is disclosed in this record, it was not even thought of while that work was in progress, nor until sometime after its completion." The court further noted that for 3 miles below where the waters from the deep cut entered the river there was "no connection between the canal and the river, and no structures, works or improvements of any kind were ever placed on the river, or any control exercised over the same, by the canal authorities or the State, for any purpose."[3]

The court said that the canal commissioners, who had allowed the defendant to divert water from the lower part of the canal, acquired their rights "not because of ownership in the water coming down the stream," but because of the state's riparian rights as owner of riparian land along the river and their agreement with the plaintiff's grantors.[4] The court concluded, however, that the diversion complained of was not authorized by riparian rights nor by the terms of the agreement that had been made. Recall the earlier discussion of the strict rules of liability that have been applied in cases, such as this, where water has been diverted around, and returned below, lower riparian lands. In most other types of cases, if the upper proprietor owns or has leased riparian land at the lower point where water is withdrawn, it would seem that he would be allowed to use some reasonable share of the mixed (natural and added) waters.[5] But to make

[2] 102 Ill. 177, at 201. The court distinguished some California cases.
[3] *Id.* at 203-204.
[4] *Id.* at 191 and 204.
[5] See Alteration of Quantity, p. 31.

sure that he could withdraw at least as much water as he put in upstream, he would do well to enter into a legally binding agreement with the intervening riparian proprietors.

With respect to the extent of a lower riparian proprietor's rights, the court said at one point that the lower proprietor was entitled, by virtue of his position, ". . . to the benefit of all improvements whereby the flow of the water in the river is increased . . ." The court added that:

. . . the lower riparian proprietor has a legal right to profit from the necessities of the upper proprietors, and of this he cannot be deprived without his consent, and so his relative condition with and without regard to the upper improvements does not, necessarily, control or affect the question of damages . . . [for the destruction of certain other riparian rights as a result of the improvements].

But the court was referring specifically to a permanent improvement by the upper proprietors (the deepening of the canal) that could not be changed back to its original state without considerable expense. The court said:

It is quite true the owner of the mill and the other riparian proprietors have no legal right to exact that this water shall be discharged into the river;[6] but when it is discharged into the river, by virtue of the character it then assumes as running water in a natural stream, and their position as lower riparian proprietors, they are lawfully entitled to the same use and benefit to result from it that they are from any other water of the stream.[7]

Such language points up a further difficulty. While an upper proprietor may be able to acquire the right to transport water in a stream and remove it at a lower point on the stream, he also may need to consider acquiring restrictions on intervening landowner's rights to remove the waters. This latter question was not in issue in this case. But the above and the following statements of the court seem to bear on it:

. . . the party causing the artificial addition has effectually abandoned all right to use and control it, the moment he has caused or permitted it to commingle with other waters and flow upon the land of another . . .

. . . where several successive mills are to be benefitted by a reservoir at the head of a stream, it is common for the several proprietors to come into an agreement to contribute proportionately to the expense of an improvement which will enure to their common benefit. But in such cases, if the lower mill owner pays anything for the benefit he enjoys, it is in virtue of the obligation he has entered into, and not of any duty incumbent on him by law.[8]

[6] It might be noted, however, that if an improvement has existed adversely to a lower proprietor for 20 years or more, any benefit to him may vest as a property right through the process of prescription, possibly as a "negative reciprocal easement." See the earlier discussion of prescriptive rights. With respect to instances in which additions to the natural flow may be treated as adverse to a lower proprietor, see also Alteration of Quantity, p. 31, and Drainage, p. 139.

[7] 102 Ill. 177, at 203-204, 206.

[8] *Id.* at 197. The latter statement was quoted approvingly from an early Massachusetts case. The court added that "like doctrine was announced by this court, in argument, in Batavia Mgf. Co. v. Newton Wagon Co.," 91 Ill. 230.

In such a case, the lower proprietors who obligate themselves to pay something to

Flooding of Others' Lands

Up to this point the discussion has centered around the limitations on the rights of use of the upper riparian owner with respect to the effect of such uses on the lower riparian owners, or the exclusive rights of a particular riparian owner to exercise certain rights in the water while it is riparian to him. Overflow, however, may involve limitations on the rights of use of a lower riparian owner with respect to the effect of such uses on the upper riparian owner.

The court has said that it makes no difference whether an increase, diminution, or diversion results from conditions above or below the riparian owner's property. His rights with regard to it are the same.[1] The court, however, has never expressly considered a case involving a lower riparian owner's interference with an upper riparian owner's rights, except in cases involving overflow.[2] It has been repeatedly held that an upper riparian owner may insist that water be allowed to continue to run as it has been accustomed to do, and he may bring an action against a lower owner who uses the water in a manner that causes it to overflow onto his property.[3] Obtaining a permit from the state to build a dam does not change the duty of the lower owner in this respect.[4]

The lower owner may have no right to construct a dam even if it does not cause a continuous flooding, if it makes the upper owner's land more susceptible to overflow during high-water periods.[5] Nor does the lower owner ordinarily have a right to construct levees that will repel overflow waters naturally flowing to his lands so as to flood others' lands. But he may do so in certain cases, as where the waters come to his land because

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the upper proprietor would do well to consider acquiring from the upper proprietor an obligation to maintain and operate the dam in a certain way.

For cases construing various agreements and court proceedings relating to the rights in and to the use of the waters in reservoirs created by mill-dams and other similar dams, see notes under Ill. Rev. Stat. Annot., c. 92. These cases deal, among other things, with rights to maintain or use such reservoirs or dams when they are no longer used for their original purposes. See Eminent Domain, p. 225, for discussion of related legislation, repealed in 1941, regarding mill and other dams.

For a description of rather extensive and complicated contractual agreements entered into regarding the withdrawal of ground water and its discharge into and conveyance in the Kaskaskia River for use in a plant near Tuscola, see J. Cribbett, Illinois Water Rights Law and What Should Be Done About It, Ill. State Chamber of Commerce (1958) pp. 34-35.

[1] Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469 (1938).

[2] The right is the same afforded by the easement of drainage but is predicated upon the riparian rights of the owner. See discussion of this point under Surface Water, p. 137. See also Dickerson v. Goodrich, 190 Ill. App. 505 (1914).

[3] O. and M. Ry. Co. v. Thillman, 143 Ill. 127 (1892); Kerber v. Stroh, 201 Ill. App. 272 (1915); City of Centralia v. Wright, 156 Ill. 561 (1895); Stout v. McAdams, 3 Ill. 67 (1839); Hill v. Ward, 7 Ill. 285 (1845).

[4] Druce v. Blanchard, 338 Ill. 211 (1930); Deterding v. Central Ill. Service Co., 313 Ill. 562 (1924). But courts may sometimes require that the injured party be satisfied with a recovery of permanent damages, particularly if the dam owner has condemnation power. See City of Centralia v. Wright, *supra*. See Actions for Damages, p. 192.

[5] Deterding v. Central Ill. Service Co., 313 Ill. 562 (1924).

the upper owner altered the course of flow of the stream on his land, thus causing the overflow waters to flow in a different direction.[6]

In a case where the channel of a creek had been relocated, the court held that this could be done by a landowner on his own land providing the new channel was of equal or greater capacity than the old so as not to cause any greater flooding of upper lands than the old channel had done. The court incidentally added the further provisos that: 1) the new channel does not cast upon adjoining lands water which did not previously flow there, and 2) that the stream is returned to its natural channel before leaving his land.[7]

The right to flow lands of another may be obtained by grant or prescription.[8] If it is a right obtained by grant, the right becomes an easement which is appurtenant to all of his land, thus allowing him to perform the acts causing the overflow on any part of his land.[9] A grantee of a right to flow lands cannot lose that right by nonuse alone, but he may lose it by adverse use by another for the prescriptive period.[10]

Artificial Watercourses Distinguished

An artificial watercourse may be any artificially constructed canal, waterway, reservoir, or pond. But it is not considered an artificial watercourse if it was constructed as an improvement of a natural watercourse,[1] or if it has existed for the prescriptive period.[2] Moreover, the public may acquire rights to use an artificial watercourse through the process of dedication.

In one case the court held that, although the watercourse had been cleaned out and enlarged, it did not change its character so as to make it an artificial watercourse, but rather it remained a natural watercourse.[3] The court held that since the watercourse into which the defendant's land drained was not an artificial watercourse he had not "connected to a district drain" and hence his land was not subject to annexation by the district under the terms of the statute.[4]

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[6] Wills v. Babb, 222 Ill. 95 (1906).

[7] Montgomery v. Downey, 17 Ill. 2d. 451 (1959).

[8] Hadden v. Shoutz, 15 Ill. 581 (1854); Johnson v. Rea, 12 Ill. App. 331 (1882).

[9] Haigh v. Lenfesty, *supra.*

[10] *Ibid.* See also Prescription, p. 50.

[1] Baumgartner v. Bradt, 207 Ill. 345, 350 (1904); Winhold v. Finch, *supra;* Inlet Swamp Drainage Dist. v. Mellhausen, 291 Ill. 459 (1920); People v. Cache River Drainage Dist., 251 Ill. App. 405 (1929). See also Kohl v. Chouteau Island Drainage Dist., 283 Ill. 69, 79 (1918).

[2] Baumgartner v. Bradt, *supra,* and Inlet Swamp Drainage Dist. v. Mellhausen, *supra.*

[3] Inlet Swamp Drainage Dist. v. Mellhausen, *supra,* at pp. 462, 463. To the same effect see Winhold v. Finch, 286 Ill. 614 (1919), where the court held that "a natural watercourse does not cease to be such because a channel has been plowed out," at p. 616.

[4] The drainage district act also permits annexation where land "has been or will be benefited or protected by any district work done or ordered to be done . . ." But the court did not deal with this question. See Ill. Stat. Annot., c. 42, § 8-3.

In an appellate court case, the court said that if an artificial ditch is made to replace a natural watercourse, it too becomes a natural watercourse.[5]

In *Saelens v. Pollentier* the court said:[6]

An artificial waterway or stream may, under some circumstances, have the characteristics and incidents of a natural watercourse. In determining the question, three things seem generally to be taken into consideration by the courts: (1) whether the way or stream is temporary or permanent; (2) the circumstances under which it was created; and (3) the mode in which it has been used and enjoyed. Where the way is of a permanent character and is created under circumstances indicating an intention that it shall become permanent, and it has been used consistently with such intention for a considerable period, it is generally regarded as stamped with the character of a natural watercourse, and treated, so far as rules of law and the rights of the public or of individuals are concerned, as if it were of natural origin.[7]

In this case, the court concluded that uncontested use of an artificial waterway for a period of 50 years was long enough for it to become "stamped with the character of a natural watercourse, and treated, so far as rules of law and the rights of the public or any individual are concerned, as if it were of natural origin."[8]

A 1904 case held that, where an artificial canal had been bordered on land for the prescriptive period of at least 20 years, riparian rights attach as an incident of ownership of such land the same as if the artificial canal were a natural watercourse.[9] In a later case,[10] the court held that where owners along a natural watercourse divert water from its natural course and establish an artificial channel through which the water flows uninterrupted and with the acquiescence of the affected persons for more than 20 years, mutual and reciprocal rights are acquired by prescription, exempting the diverting owner from restoring the water to its original channel because of the loss of riparian rights by the lower owners, and releasing the lower owners of the burden of the easement of drainage in favor of the upper owners, this latter being predicated upon the riparian rights acquired by the owners along the artificial channel. Until the artificial channel has been in use for the prescriptive period, the owners of land along it gain no rights and the owners may obstruct the flow of water in it without being liable in damages to either upper or lower owners.[11]

The question often arises as to the rights of use, by an owner of land bordering upon a drainage-district ditch, of the water in the ditch. The drainage code provides that the owner of any land over which a drainage district has a right of way may use the land occupied by the right of way in any manner that will not interfere with the operation of the drainage

[5] People v. Cache River Drainage Dist., *supra.*

[6] 7 Ill. 2d, 556, 561 (1956), quoting from 56 Am. Jur., at p. 621, § 151.

[7] Public rights may be gained through dedication, as described in the next section.

[8] Saelens v. Pollentier, *supra,* at 563.

[9] Beidler v. Sanitary Dist., 211 Ill. 628 (1904).

[10] Mauvaisterre Drainage and Levee Dist. v. Wabash Ry. Co., 299 Ill. 299 (1921).

[11] See Weidekin v. Snelson, 17 Ill. App. 461, 465 (1885).

system or increase the costs of the district.[12] Thus, if the landowner owns the underlying fee (the drainage district having only a right of way) and the drainage ditch is an artificial watercourse as discussed above, he apparently would have the right to use all of the water coming to his land in the ditch so long as he does not violate the restrictions of section 12-1 in the drainage code.[13] To help assure that these restrictions are not violated, it would be well first to obtain approval of the drainage commissioners before making use of the water.[14]

If the drainage ditch does not qualify as an artificial rather than a natural watercourse, the landowner's right of use is also subject to the rights of use of others along the ditch, just as where any other natural watercourses are concerned. (It also should be noted that rules of law applicable to natural watercourses may affect rights to use water in an artificial watercourse if it diverts water from or into a natural watercourse.[15]

If the drainage district owns the fee title to the bed and banks of the ditch, further questions arise. For example, if the bordering owner has an easement to go upon the district's land and utilize it in a manner that does not interfere with the district's rights, it seems that he would have the same rights of use as a bordering landowner who owns the underlying fee subject to the drainage district's right of way. But if he has no right to go upon such district's lands, the drainage district holds the rights of use, and any bordering landowner must obtain his right of use through it. There have been no decisions on these points, so any conclusions are necessarily tentative.[16]

A 1906 case concerned an artificial drainage ditch built between 1860 and 1870 under a special act (PRIVATE LAWS 1855, page 576). This private act had been held invalid, but the court (after noting that the ditch was not a natural watercourse and not governed by laws applicable thereto) referred to an 1899 statute regarding the construction and use of drains built or connected to by the mutual consent of the landowners, etc.[17] and said "That statute, and the purpose for which this drain was originally constructed, together with the purpose for which it was continually used for thirty-five years, fix upon it the rights of the adjoining landowners and duly established the purposes for which it may rightfully be used." The court thereupon enjoined a sanitarium from discharging its sewage into the drainage ditch without the landowners' consent.[18]

[12] ILL. REV. STAT., c. 42, § 12-1.

[13] He probably would have no right to have the water flow to him from the upper proprietor in such a situation, since the water is treated as surface water, not stream water. See Surface Water, p. 137.

[14] For a general discussion of the powers of drainage districts, see the later discussion of them.

[15] See especially Alteration of Quantity, p. 31, and Drainage, p. 139.

[16] See earlier discussion of the rights of use of the owner of the bed and banks of a natural watercourse.

[17] Such legislation is discussed under Drainage, p. 139.

[18] Kenilworth Sanitarium v. Village of Kenilworth, 220 Ill. 264 (1906).

Dedication to Public Use

As will be shown shortly, the general public ordinarily does not have navigation or other rights to use non-navigable streams and non-meandered and non-navigable lakes and ponds. But all or portions of such waters, or of artificial watercourses, may be dedicated to such use by the riparian or bed owners. The court has said that:

A dedication of land or water to public use is defined as the appropriation or gift by the owner of the land or waterway of an easement therein for the use of the public. The act of dedication may be by deed or by opening up the land or waterway without stating for what use, or by offering or permitting a public use with intention to so dedicate. . . . There must be clear and satisfactory proof both of the intention of the owner to dedicate the land or waterway and the acceptance thereof by the public. . . . The intention to dedicate may be manifested by the acts of the owner of the land or water in opening it up to public use, or it may be shown by a survey and plat, without any declaration, either oral or on the plat, that it was the intention of the proprietor to set apart the ground or waterway for public use.[1]

In this case, the court held the following facts sufficient to constitute dedication of an artificial channel or slip to the public for navigation purposes: its continued use for such purposes for 40 years with the landowner's knowledge and without any attempt to charge a fee therefor or interfere therewith; adoption of city ordinances placing it under the control of a harbor master, "which also must be held to have been with the knowledge" of the landowner; and the failure of the landowner or his grantors to pay taxes on the underlying land.

The Attorney General has expressed the opinion that an inlet constructed on private property that connected with Lake Michigan had not been dedicated to public use, as it had never been used for any length of time without a permit or lease and a payment to the landowner of a substantial rental, quoting requirements for dedication set out in the above case.[2]

The Attorney General also has said that posting "no trespass" signs or blocking the entrance to an artificial watercourse with a chain would tend to negate any intention to dedicate its use to the public.[3]

The court has hinted that it might in certain cases find that, while there had been no dedication to use by the general public, certain individuals might have acquired private rights of use for particular purposes through dedication.[4]

In one case the plaintiffs who owned lands bordering upon a non-navigable lake had for many years allowed people to come and go on the lake at will. They then sued to enjoin the defendants from interfering with their use of the lake for navigation, fishing, hunting, bathing, ice cutting, and other recreational and similar uses. In rejecting the defend-

[1] DuPont v. Miller, 310 Ill. 140, 146-147 (1923).
[2] Ops. Att'y Gen. 1957, at 224.
[3] Ops. Att'y Gen. 1955, at 193.
[4] Hubbard v. Bell, 54 Ill. 110, 122 (1870).

ants' defense of common-law dedication, the court said that the process of common-law dedication is a question of fact of which there must be clear, unequivocal, and satisfactory proof of intent to dedicate, and mere non-assertion of a right will not suffice. (The court also held that permissive use would not ripen into a prescriptive right.)[5]

Navigable Waters

Definition. The Illinois courts have repeatedly said that navigable waters in Illinois include all those waters navigable in fact in their natural condition.[1] In some cases this has been determined by considering their condition at the time of the admission of Illinois to the Union in 1818, especially for the purpose of determining whether the state acquired title to the beds of and public rights to use lakes.[2]

The early case of *Hubbard v. Bell*[3] considered the question of what size a watercourse must be before it is navigable in fact. In that case plaintiff claimed the right to float logs down a stream flowing across the lands of the defendant, who owned land bordering on both sides of the stream. Although the exact size of the stream was not clear, the court said (page 114):

We are led to infer, from what is stated, that it is an inconsiderable stream, nearly or wholly dry in the summer season, and carrying a volume of water sufficiently powerful to float logs or rafts only in seasons of freshets, and then for a few days or weeks only.

The court reviewed a number of cases from Maine and Michigan. It concluded that the rules laid down by certain of those cases that a stream is considered navigable if logs might be floated down it at certain seasons of the year when it is swollen by a freshet could not be sanctioned in Illinois.[4] The court subscribed to a stricter test, as indicated by the following language:

It is not enough that a stream is capable during a period, in the aggregate, of from two to four weeks in the year, when it is swollen by the spring and autumn freshets, of carrying down its rapid course whatever may have been thrown upon its angry waters, to be borne at random over every impediment

[5] Leonard v. Pearce, 348 Ill. 518 (1932). See the earlier discussion of prescription.

[1] The common-law test of navigability, determined by the ebb and flow of the tide, is not used in Illinois, where navigability in fact is also navigability in law. Schulte v. Warren, *supra* at 118.

[2] See Wilton v. Van Hessen, 249 Ill. 182 (1911); State v. New, 280 Ill. 393 (1917); Dupree Rod and Gun Club v. Marliere, 332 Ill. 322 (1928).

In State v. New, *supra* at 399, the court said: "The proof of the actual condition of the lake does not go further back than a period between 1850 and 1860. It was then in a state of nature, and if navigable at that time we might be justified in assuming that it was navigable before that and at the time the state of Illinois was admitted into the Union. If at that time the lake was navigable . . . the title to the bed of the lake passed to and vested in the state of Illinois . . ."

See Lakes and Ponds, p. 77.

[3] 54 Ill. 110 (1870).

[4] Hubbard v. Bell, *supra,* at 123.

in the shape of dams or bridges which the hand of man has erected. To call such a stream navigable in any sense, is a palpable misapplication of the term.[5]

In *Schulte v. Warren, supra,* at page 119, the court said:

In some States, where the lumber interest has been regarded of first importance, the courts have held that waters which are capable of floating logs are navigable; but in *Hubbard v. Bell,* 54 Ill. 110, this court declined to adopt such a rule, and adhered to the doctrine that navigable waters must be capable of practical general uses. . . . A stream is navigable in fact only where it affords a channel for useful commerce and of practical utility to the public as such. The fact that there is water enough in places for row boats or small launches answering practically the same purpose, or that hunters and fishermen pass over the water with boats ordinarily used for that purpose, does not render the waters navigable.[6]

But the court continued by saying that "it is not necessary that the waters should be navigable in all their parts in order that the public may have a right of navigation where the waters are deep enough and fit for such use."[7] The court concluded that, although a large part of the watercourse in question (a lake) was covered with timber, buck-brush, and willows and was incapable of use for navigation, the fact that there were also large open spaces where the water was deep enough for purposes of navigation, made the body of water navigable in fact and therefore navigable in law.

The language of the above cases was affirmed in *People v. Economy Light and Power Co.* where the court said that:

A stream, to be navigable, must in its *ordinary, natural condition* [emphasis added] furnish a highway over which commerce is or may be carried on in the customary modes in which such commerce is conducted by water.[8]

This case involved a determination as to whether a part of the Des Plaines River in Grundy County, Illinois, was navigable. Evidence was introduced concerning the use of the river by Marquette and Joliet, missionaries, in 1673-74; by Jean Baptiste Perrault, fur trader, in 1783; by Hugh Heward, an historic adventurer, in 1790; and certain others. The

[5] Hubbard v. Bell, *supra,* at 122.

[6] The court also referred to and approved its earlier statements, in Joliet and Chicago R. R. Co. v. Healy, 94 Ill. 416 (1880), to the effect that a stream to be navigable must furnish "a common passage for the king's people," must be "of common or public use for the carriage of boats and lighters," and must be capable of bearing up and floating vessels for the transportation of property conducted by the agency of man. (Quoting from HALE, DE JURE MARIS.)

[7] Schulte v. Warren, *supra,* at 120. See also People v. Economy Light and Power Co., *infra,* where the court said that one claiming that a stream is navigable need not show that it is navigable in its entirety.

[8] 241 Ill. 290, 332 (1909), writ of error dismissed, 234 U.S. 497 (1914). The court also quoted the second sentence of the earlier quotation from Schulte v. Warren, *supra.*

In a later case the court stated that whether waters are navigable depends upon whether they are of sufficient depth, in their natural state, to afford a channel for use for commerce. DuPont v. Miller, 310 Ill. 140, 145 (1923).

court said that this evidence tended to show that the Des Plaines River was non-navigable rather than navigable.

> The fact that during this long period only an occasional voyage was made under the guidance of an historic adventurer or a religious zealot, who in the language of Marquette, "feared no death and regarded no happiness greater than that of losing his life for the glory of Him who made us all," is not sufficient evidence to prove that the Des Plaines River was, in fact, regarded as navigable by the great majority of the people who must have been acquainted with it during this period.[9]

After more discussion, the court concluded that the Des Plaines River in its natural condition was not a navigable stream.[10] It relied heavily on the fact that it had seldom, if ever, been used for purposes of *commercial* navigation.

The court said that the navigability of a stream must be determined with reference to its natural condition. If thus navigable it may be improved to enlarge its usefulness,[11] but if it is not navigable in its natural condition the state may not make it navigable by artificial improvements and destroy vested rights of riparian owners without compensation.

If the question of navigability in fact is put in issue, it ordinarily is for the jury to determine.[12] The court, in *Sanitary Dist. v. Boening,*[13] held that the following instruction to a jury gave them the proper test:

> You are instructed that a stream, to be navigable, must furnish a common passage capable of floating vessels for the transportation of property conducted by the agency of man, and a stream is navigable in fact only where it affords a channel for useful commerce and of practical utility as such. The fact, if it be a fact, that there is water enough in places or at certain seasons of the year for row boats or small launches is not sufficient to make the stream navigable in fact.
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> A stream of water to be navigable in fact must in its ordinary and natural condition furnish a highway over which commerce is or may be carried in the customary mode in which such commerce is conducted by water.[14]

If a watercourse has once been navigable it is within the power of the

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[9] People v. Economy Light and Power Co., *supra,* at 335.

[10] Of this river, the court has held that it is not navigable and a legislative declaration saying it is navigable cannot make it such. See People v. Economy Light and Power Co., *supra,* regarding ILL. REV. STAT., c. 19, § 41. In an earlier supreme court case, the court had affirmed and applied a legislative declaration that the Fox River was navigable. Parker v. People, 111 Ill. 581, 586 (1884). This was relied on in City of Elgin v. Elgin Hydraulic Co., 85 Ill. App. 182, 193 (1899).

[11] The court said, at 89 N.E. 769, that it is to this principle that the case of Schulte v. Warren, *supra,* is to be referred. In the *Schulte* case, the court appears to have indicated that public navigation rights could attach to waters outside the meander lines of a meandered and navigable lake that have become navigable in fact through artificial means that had suddenly enlarged the size of the lake. But it held that public fishing and hunting rights could not be thus extended to the waters overlying the privately owned portion of the bed outside the meander lines. See 47 A.L.R. 2d. 397, 399. The extent to which navigable watercourses may be artificially improved, and fishing and hunting rights, are considered in more detail later.

[12] People v. Bd. of Supervisors, 122 Ill. App. 40 (1905).

[13] 267 Ill. 118 (1915).

[14] *Id.* at 126.

state to preserve it for purposes of future transportation, even though it is not at present used for commerce and is incapable of such use according to present methods, either by reason of changed conditions or because of artificial obstructions.[15]

Some watercourses or parts of watercourses in Illinois have been held to be navigable,[16] while others have been held non-navigable.[17]

It is not clear whether any presumption of navigability arises where a stream or river has been meandered, as it does in the case of lakes. (See Lakes and Ponds, *infra.*) The court in one case appears to have implied that the meandering of a stream has no such effect, at least where it has no effect on bed ownership.[18] The fact that meander lines have been drawn along a stream or river generally would have no effect on bed ownership, since the bed is ordinarily owned by riparian landowners, not the state, even though the stream is navigable.[19] This is perhaps a primary reason why the question of any effect that the meandering of a stream may have on the determination of its navigability has seldom been considered by the appellate courts.

Riparian and bed-ownership rights. Under the general rule of law applied in Illinois, riparian owners own the beds of rivers and streams, both navigable and non-navigable, although there are certain possible exceptions as noted later.[20] A riparian proprietor along a navigable watercourse apparently has substantially the same rights incident to his riparian proprietorship, as does one who is riparian to a non-navigable body of water, except that his rights are always subject to the public easement of navigation,[21] and perhaps are subject to preferential rights for municipal

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[15] DuPont v. Miller, *supra*, relying on Economy Light Co. v. United States, 256 U.S. 113 (1921).

[16] Chicago River (Leitch v. Sanitary Dist., *supra*); Wabash River [Ops. Att'y Gen. 179 (1944)]; Mississippi River [People v. St. Louis, 10 Ill. 351 (1848)]; Spring Lake [Ops. Att'y Gen. 292 (1951) 273]; Clear Lake (Schulte v. Warren, *supra*); and other cases.

[17] Sangamon River [Central Ill. Pub. Serv. Co. v. Vollentine, 319 Ill. 66 (1925)]; Healy Slough (Joliet and C. R. R. Co. v. Healy, *supra*); Big Creek (Hubbard v. Bell, *supra*); Lake Zurich [Leonard v. Pearce, 348 Ill. 518 (1932)]; and other cases.

[18] See discussion of People v. Economy Light and Power Co. under Ownership of Bed of Navigable Streams, p. 67. See Appendix A for a list of meandered streams and lakes in Illinois.

[19] See Ownership of Bed of Navigable Streams, p. 67, and Ownership of Bed, p. 46.

[20] In instances where the state may own the beds, there apparently would be public rights to fish and hunt on the waters overlying the state-owned beds, comparable to such public rights in navigable lakes, discussed later (although in instances where the state has purchased or otherwise acquired such ownership after statehood, whether in navigable or non-navigable streams, this may depend on the purposes for which the ownership was acquired.) But this question does not appear to have been presented to an Illinois appellate court for decision. Also recall the earlier discussion of possibilities of public-use rights acquired through dedication to public use.

[21] People v. Economy Power Co., *supra;* Middleton v. Pritchard, 4 Ill. 509, 519 (1842). But if a lake or pond is navigable, ownership of the bed generally is in the state in trust for the people of the state who are entitled to a variety of public uses of the lake waters. See discussion under Lakes and Ponds, p. 77.

or public water-supply purposes, discussed later. Unlike the law of several other states, this apparently includes exclusive rights of fishing and hunting over his privately-owned streambed, as discussed earlier. Fishing and hunting rights have been held not to be an incident of nor dependent upon the navigation easement.[22]

As noted under Lakes and Ponds, page 77, the court in one case held that private owners of certain portions of the submerged lands under a navigable lake, although subject to the public easement of navigation, could exclude others from fishing and hunting over their submerged lands. Although no case announcing such a rule regarding fishing or hunting rights has been located that directly concerned such rights in rivers or streams, the court has expressly said that the rule applies to both lakes and streams.[23] Nevertheless, it would not seem surprising for the court eventually to decide that the public generally does have rights to use navigable streams for such purposes, in view of 1) the lack of a direct holding on the point, 2) the Illinois court's statements being contrary to court decisions in several other states,[24] and 3) the increasing citizen-interest in fishing and other recreational uses of water since these statements were made by the court.

In any event, it should be noted that the court has said in three cases that fishing rights are exclusive to the bed owner "unless restricted by

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[22] Schulte v. Warren, *supra,* at 124.

[23] Schulte v. Warren, *supra.* At p. 123, the court said that in Washington Ice Co. v. Shortall, *supra* (holding that a riparian landowner on a navigable stream had exclusive rights to the ice in front of his land) it also had recognized the riparian's exclusive right to fish in such waters, subject to the public easement of navigation. It also said that in Braxon v. Bressler, *supra* (which also involved a navigable stream) it had recognized the rule that, subject to the public navigation easement, every other beneficial use is in the owner of the soil. (See also People v. Economy Light and Power Co., *supra,* at p. 318; Middleton v. Pritchard, *supra,* pp. 519-520, Trustees of Schools v. Schroll, *supra,* at p. 518.) While ownership of the beds of navigable lakes ordinarily is in the state, this case involved the rights of the owner of submerged lands under a navigable lake that had overflowed such lands (which previously bordered on the lake) by reason of artificial improvements in connecting waters. The court held, as noted later, that while such lands had become subject to a public navigation easement, fishing and hunting rights over the privately owned lands belonged to the landowner.

The Attorney General, in an opinion rendered in 1924 (1923-24 Ops. Att'y Gen. 269) stated that the owner of riparian land along a navigable river could prevent others from hunting or fishing over his privately owned streambed, relying on the *Schulte* case, said to be the leading case regarding such questions. See also 1917-18 Ops. Att'y Gen. 495.

In a case involving the damming of a stream regarded as navigable so as to obstruct the passage of fish, the court said "the common law has always recognized the right of the riparian owner to take fish in the waters running over his own soil, and appropriate them to his own use. . . ." This might, but does not necessarily, imply that he has *exclusive* rights to do so, a question which does not appear to have been in issue. At any rate, the Court added that ". . . such owner has never had the right to obstruct their passage . . . nor has he the right to wantonly destroy the fish passing over it. . . ." Parker v. People, 111 Ill. 581, 589 (1884).

[24] See 47 A.L.R. 2d. 381.

some local law or well-established usage of the state where the premises may be situated."[25] Such a well-established usage by the public might especially occur with respect to the Mississippi River and navigable portions of other large rivers in the state. But in saying this, the court appears to have made only a passing reference to the established-usage possibility.[26] Possibilities of dedication of waters to public use were considered earlier.[27]

The ownership of the shore alone carries with it at least rights of access to and wharfage rights along a navigable watercourse.[28]

Easement of navigation. The easement of navigation includes the rights of the public to use the water, unimpaired, for purposes of navigation, and the right to perform other acts necessary in the enjoyment of

[25] Beckman v. Kreamer, 43 Ill. 447 (1867), quoted in People v. Bridges, 142 Ill. 30, 43 (1892) and Schulte v. Warren, *supra,* at 123. The first two cases involved lakes not stated to be meandered or navigable. The last case dealt with a lake concluded to be navigable.

[26] In none of the cases cited in the preceding footnote did the court expressly consider whether there may have been some local law or well-established usage to the contrary. But in two of the cases it held that fishermen or hunters had wrongfully trespassed on the lakes in question, thereby implying that there was no local law or established usage that would permit such use. Beckman v. Kreamer and Schulte v. Warren, *supra.* In the other case, the fisherman had the consent of the landowner. Here the court added that the landowner's exclusive fishing rights were "subject to such rules as may be imposed by law or usage upon its exercise" in support of its finding that a certain state statute regulating the catching of fish in all watercourses in the state could validly be applied to the small lake in question. People v. Bridges, *supra.*

[27] See Dedication to Public Use, p. 59. The cases dealing with possibilities of dedication to public use did not refer to the "well established usage" possibility referred to in the *Beckman* case as noted above. Hence what relationship the two possibilities may have to each other is not clear. For possibilities of prescriptive rights, see Prescription, p. 50.

In an early Massachusetts case which the Illinois court cited in Beckman v. Kreamer, *supra,* that court had said that a riparian landowner had the right to exclude others from fishing in his pond constructed on a non-navigable stream unless they could show there was "a custom for all the inhabitants of the vicinity to take fish in the pond within the plaintiff's close. . . . But the custom proposed to be proved is not one that could be sustained in law. . . . If such a right is available at all, it must be set up by prescription as belonging to some estate. . . ." Waters v. Lilley, 21 Mass. 145 (1826). In a later Massachusetts case (which the Illinois court also cited) fishing rights were claimed through prescription. The court said: "As a general rule, a party cannot allege a custom to claim an interest . . . in the estate of another, without a prescription in a *que estate*" (apparently meaning for the benefit of certain property) although it added that "we believe it has sometimes been said that 'Piscary' (the right of fishing) is a freehold in itself, in which there is no occasion to show to what freehold it is appendant." The court did not decide this question. McFarlin v. Essex Co., 64 Mass. 304, 310 (1852).

The courts in the other early American cases cited by the Illinois court either mentioned no exceptions or only possibilities of grants or prescription. Hooker v. Cumins, 20 John. (N.Y.) 90 (1822); Chalder v. Dickinson, 1 Conn. 382 (1815). See also WASHBURN, LAW OF EASEMENTS AND SERVITUDES (1863) at 411, which was cited by the Illinois court.

[28] Miller v. Comm'rs of Lincoln Park, *supra;* Ensminger v. People, 47 Ill. 384 (1868).

this right.[29] There is a public trust residing in the government of the state of Illinois to protect these rights and benefits of the people of the state in the navigable waters within the state.[30] But there is a paramount right of the government of the United States to control and regulate certain navigable waters.[31]

In *Washington Ice Co. v. Shortall, supra,* the court quoted language from a Connecticut case to the effect that the easement of the public was to use the water as a highway, for passing and repassing of watercraft. Other Illinois cases affirm these statements, and expressly declare that other uses depend upon the ownership of the bed or of the banks of the watercourse.[32] One case states that "wherever there is the right of navigation there is the incidental right to use the banks of the stream, to a greater or less extent, as the purposes of navigation may require."[33] But this statement was not necessary to the decision of the case, and is in conflict with direct holdings in earlier cases. In 1868, the court was squarely faced with the issue. It then said:

> . . . these great rivers which traverse our continent, are public highways, free to the use of all, under reasonable and proper restrictions. All persons have the right to navigate these streams, and in doing so, to land at all proper places for the usual, necessary and proper purposes, under like restrictions. The absolute rights of persons in the use of the stream for the purposes of navigation, extend alone to the bed of the river, and not to the appropriation of the soil on its banks, either permanently or temporarily, to their own uses, unless it be in case of peril when vessels may no doubt, land either boat or cargo at any point that safety may require, but whether the owner or master in such case would be liable to make due and reasonable compensation, it is not now necessary to inquire, as that question is not before us for determination.[34]

The court continued by saying that 1) the public cannot use the banks for towing their vessels on the stream, 2) the banks are not under or subject to the servitude of the easement of navigation, 3) the right must be acquired by agreement, prescription, grant, dedication, or under the powers of eminent domain, and 4) the increasing commerce cannot divest the well-established and recognized rights of property in the bordering landowners.[35] This view was later affirmed in *Chicago v. Laflin.*[36]

A riparian proprietor may construct wharves and maintain docks on his land bordering on a navigable watercourse, so long as this does not obstruct or impede the navigation of the watercourse.[37] If any part of the wharves or docks is to be located on a part of the bed that is owned

[29] Braxon v. Bressler, 64 Ill. 488 (1872); DuPont v. Miller, *supra.*

[30] State jurisdiction over navigable waters is discussed in a later section.

[31] See Ops. Att'y Gen. 292 (1951), 273. Federal jurisdiction is discussed later.

[32] Schulte v. Warren, *supra;* People v. Economy Power Co., *supra.*

[33] Alexander v. Talleston Club, 110 Ill. 65, 75 (1884). See also Middleton v. Pritchard, 4 Ill. 509, 522 (1842).

[34] Ensminger v. People, 47 Ill. 384 (1868).

[35] *Id.* at 391.

[36] 49 Ill. 172 (1868).

[37] Ensminger v. People, *supra;* Chicago v. Laflin, 49 Ill. 172 (1868).

by another, other than the state, his consent generally must also be obtained.[38] There are, however, certain permit requirements that need to be satisfied.[39]

An incident of the easement of navigation is the right of the state to improve the navigable watercourse to enlarge its usefulness for the public's benefit.[40] It is not clear to what extent this right may be exercised if it causes injury to riparian owners, but it seems that if it causes material injury to their bordering land, they must be compensated.[41] If the improvement involves interference only with the rights below the ordinary high-water mark, there is no compensable injury to the riparian owner. These rights are subordinate to the rights of the public. Thus, in the improvement of navigation, no compensation is due for impairment of use of property rights within or over the bed of navigable waters. But there can be no interference with a riparian owner's rights above the ordinary high-water mark without payment of just compensation under eminent-domain proceedings.[42]

Any interference with the easement of navigation shall be prosecuted by the state in which a public trust resides to protect it. Such an action for interference apparently cannot be maintained by an individual user of the easement,[43] unless he suffers some special damage not suffered by the public in general.[44] It is a public nuisance "to obstruct or impede, without legal authority, the passage of any navigable river or waters," and offenders are subject to criminal prosecution.[45]

Ownership of beds of navigable streams. The same rules of ownership ordinarily apply to the beds of navigable streams and rivers that apply to non-navigable streams.[46] Thus, the rights of riparian owners on navigable streams or rivers generally are the same with regard to use,

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[38] Cobb v. Lincoln Park Comm'rs, 202 Ill. 427 (1903).

[39] A permit shall be obtained from the Department of Public Works and Buildings. ILL. REV. STAT., c. 19, § 65. The question of securing permission of the federal government is treated later.

[40] People v. Economy Power Co., *supra* at 326.

[41] Starkweather v. Mississippi River Power Co., 231 Ill. App. 344 (1923).

[42] U. S. v. Meyer, 113 F. 2d 387 (1940); *cert. denied,* Meyer v. U. S., 61 S. Ct. 174, 311 U.S. 706; People v. Economy Power Co., *supra.*

[43] Corrigan Transportation Co. v. Sanitary District of Chicago, 125 F. 611 (1903), *aff'd Corrigan Transit Co. v. Sanitary Dist. of Chicago,* 137 F. 851 (CCA, 7th Ct.) (1903). For a case where this question might have been raised, but apparently wasn't, see Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469 (1938); 386 Ill. 433 (1944).

[44] Bardon v. Excelsior Stove and Mfg. Co., 231 Ill. App. 366 (1923). For an earlier case where the supreme court indicated that one who built a milldam on a navigable stream would be liable for obstructing it, see Clark v. Lake, 2 Ill. 229 (1835).

[45] ILL. REV. STAT., c. 100½, §§ 26(4), 29; David W. Swain and Son v. Chicago B. and Q. Ry. Co., 252 Ill. 622 (1912).

[46] Middleton v. Pritchard, 4 Ill. 509 (1842); Braxon v. Bressler, 64 Ill. 488 (1872); Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469, 474 (1938); St. Louis v. Rutz, 138 U.S. 226 (1891). See Ownership of Bed, *supra,* for a description of these rules. But a different rule applies to lakes and ponds, as discussed later. Regarding applicable federal laws, see Federal Law Regarding Ownership of Beds, p. 82.

ownership, and rights of disposition over the beds of such watercourses, as are those on non-navigable watercourses, subject always to the easement of navigation as discussed above.[47]

With respect to the effect of meander lines, if any, on bed ownership,[48] in a case in 1909 the court held that, under a grant by the United States government in 1827, the State of Illinois had acquired title to certain lands, including the bed of the Des Plaines River at the location in question, for purposes of the Illinois and Michigan Canal. In construing Illinois statutes relating to the canal the court concluded that:

Anything found in the act of 1839 manifesting an intention of the State at that time to limit sales of canal lands within the meander lines of the Des Plaines river must be held inconsistent with the comprehensive language of the act of 1843 and superseded thereby. . . . Deeds made by the canal trustees (of the Illinois and Michigan canal) under the act of 1843 to lands bordering on the Des Plaines river conveyed the title to the purchaser to the thread of the stream.

The court added that:

Appellant also contends that since the undisputed evidence shows that the Des Plaines river was meandered by the government surveyors, such meander line is the boundary of riparian proprietors. A meander line is not a boundary line, but is designed to point out the sinuosities of the bank or shore and a means of ascertaining the quantity of land in the fraction which is to be paid for by the purchaser [citing a United States and Ill. case[49]]. An exception to this general rule seems to be recognized where the meander line is run and monuments are erected, but . . . the evidence fails to show that any monuments were erected on the meander line, hence this case falls within the general rule and not within the exception. The State of Illinois is not the owner of the bed of the Des Plaines river at the place where the proposed dam is located.[50]

The court went on to consider whether the river was navigable at the location in question. It concluded that it was not. In deciding this ques-

[47] Middleton v. Pritchard, *supra;* Leitch v. Sanitary District of Chicago, 369 Ill. 469, 17 N.E. 2d. 34, 36-37 (1938).

[48] See Appendix A for a list of meandered streams and lakes in Illinois.

[49] Whitaker v. McBride, 197 U.S. 510 (1904); Albany Railroad Bridge Co. v. People, 197 Ill. 199 (1902). See also Hardin v. Jordan, 140 U.S. 371, 380 (1890) and People v. Hatch, 350 Ill. 586, 591 (1932), although these cases involved lakes, not streams.

[50] People v. Economy Light and Power Co., 241 Ill. 290, 317-320 (1909). [Writ of error dismissed, 234 U.S. 497 (1914), without considering the effect of meander lines.]

The court concluded that the title to the bed of the river at the location in question passed to the state by virtue of the special federal grant for canal purposes but that the title thereto was reconveyed by the state to the riparian grantees who bought from it. The court implied that it would take the same view regarding meander lines for the purpose of construing grants by the federal government to individual riparian proprietors.

In an earlier case involving a lake, the court described another possible exception to the general rule regarding the lack of any effect of meander lines along streams on bed ownership when it said: ". . . There are cases where the meandered line would be of itself the boundary, as where the line run by the government surveyors, by mistake or fraud in surveying the public lands, leaves between such line and the stream

tion, it appears to have omitted any consideration of the meander lines and hence it seems to have implied that the meandering of a stream or river has no effect in deciding its navigability, at least where, as here, it was decided that the meander lines had no effect on bed ownership.

The state had claimed in this case that the defendant power company had no right to build a dam on the river, among other reasons, because 1) the state owned the bed of the river and 2) the river was navigable (and navigation would be obstructed) at that location. The court decided both questions in the defendant's favor.

With respect to the possible exception noted by the Illinois court to its general rule (that federal grants of lands adjoining streams convey title to their beds) where monuments were erected on the meander lines run by the government surveyors,[51] it may be noted that in an earlier case the court said:

> But it is said the meandered line run by the government surveyors along the fractional sections on the south, mentioned in the stipulation, should control as to the southern boundary of appellee's lands. Had corners been established, or government monuments erected, or plats made, showing it to be the intention that the meandered line should form the southern boundary of appellee's purchase, those facts would properly determine the extent of the grant; but that a meandered line, which does not appear upon the plats in the United States land office, and which was, no doubt, run for the sole purpose of ascertaining the quantity of land in the fraction, should have the same effect as a visible government monument, is a proposition which we do not feel inclined to sanction.
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> Indeed, it was settled in *Middleton v. Pritchard, supra,* and *Canal Trustees v. Haven,* 5 Gilm. 548, and subsequent cases, that a meandered line, which is run for the purpose of ascertaining the quantity of land in the fraction, can not ordinarily be regarded as a boundary line.[52]

Some other earlier Illinois cases mentioning such an exception are

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or lake a considerable body of land, on which is vegetation, etc., above the ordinary stage of water. In such case the surveyed land is all that is granted by the United States, and the patentee is not a riparian proprietor, his boundary being fixed by the meandered line."

Fuller v. Shedd, 161 Ill. 462, 476 (1896). See also Kinsella v. Stephensen, 265, Ill. 369, 106 N.E. 950, 954-955 (1914); Ops. Att'y Gen. 1955, at 190. It would seem, however, that such mistakes or fraudulent acts might sometimes have been later corrected by the federal government. See Fuller v. Shedd, *supra,* 44 N.E. at 293.

[51] In a later case decided the same year involving the same (Des Plaines) river, the court said that it had held in the earlier case that the meander line along that river did not constitute a boundary line, without mentioning the question of monuments on meander lines. Miller v. Sanitary District of Chicago, 242 Ill. 321, 325 (1909).

[52] Houck v. Yates, 82 Ill. 179, 182-3 (1876). The court added that "If, in the original survey, the meandered line had been designed as the southern boundary of appellee's lands, the government plat, no doubt, would have indicated that fact, and the strip of land between the meandered line and the river would also have been surveyed and platted. This, however, was not done. But the plat showing the river as the boundary of appellee's purchase, and the additional fact that the strip of land between the meandered line and the river was not surveyed or platted, would seem to leave no room for doubt that the river was intended for the southern boundary of appellee's lands."

discussed in the footnote below.[53] In some other early cases dealing with the effect of meander lines, the court did not mention any possible exception if monuments were erected thereon.[54] Similarly, in some later cases the court has held that riparian landowners owned the bed of a meandered river without considering such a possible exception, although in such cases this perhaps was not considered because none of the contestants had raised the question.[55] The Attorney General has referred to such an exception in at least two opinions, given in 1915 and 1918,[56] although he has ignored it in other opinions.[57]

[53] In an 1842 case, the court noted that there was one existing bearing tree where a section line crossed a river, but all of such other "bearing trees or tangible limits, if any such there were, they seem to have been washed away." One who made a special survey for the case concluded that a necessary corner for locating the meander line could not be ascertained with certainty. Middleton v. Pritchard, 4 Ill. 509, 510, 515. The court concluded that a federal patent to adjoining land was bounded by the river and hence its owner owned the bed and a disputed island (p. 522). The court said, at 518, that: ". . . It appears the survey of the government traced the courses and distances along the margin of the slough, next the main land, in order to estimate the quantity of land in the fraction. . . . But the plats in the land office, and the surveyor-general's office, have no line marking these courses and distances as a boundary. They are taken from the field notes of meandering, in the surveyor-general's office." The court added, at 522, that "There is no line upon the maps or plats, nor any direction in the field notes, nor any other visible monument to define and designate the southern boundary of the tract. It is true, the field notes of the meandering of the front of this tract speak of it as the northerly boundary. But . . . the meandering is for the purpose of ascertaining the quantity of land. This, therefore, cannot control."

See Canal Trustees v. Haven, 10 Ill. 548, 558-9 (1849) where the court cited this case without mentioning any possible exception if monuments had been erected on the meander line. Both cases were cited in Houck v. Yates, 82 Ill. 179, 182 (1876) for the proposition that "a meandered line, which is run for the purpose of ascertaining the quantity of land in the fraction, can not be regarded as a boundary line." But the court alluded to a possible exception if monuments were erected on the meander line, as noted in the preceding quotation from this case.

[54] See Canal Trustees v. Haven, *supra*. See also Fuller v. Dauphin, 124 Ill. 542 (1888) and Albany Bridge Co. v. People, 197 Ill. 199, 203 (1902). In the latter case the court concluded that the meander line in question did not constitute a boundary line, as it did not appear on the government plat showing the Mississippi River as a boundary and the field notes showed that the survey lines of a fractional section intersected the river.

[55] See Allott v. Wilmington Light and Power Co., 288 Ill. 541, 734-5 (1919); Sikes v. Moline Consumers' Co., 293 Ill. 112, 344 (1920); Davis v. Haines, 349 Ill. 622, 182 N.E. 718, 721 (1932). See St. Louis v. Rutz, 138 U.S. 226, 242 (1891) and Tempel v. United States, 248 U.S. 121, 129 (1918) making no reference to such an exception in regard to meandered rivers in Illinois.

Another possible reason why the Illinois court did not mention such an exception in its later cases is that the federal courts usually have not done so.

[56] 1915 Ops. Att'y Gen. 855; 1917-18 Ops. Att'y Gen. 718. In the latter opinion, without citing cases, he said that it seems that a meander line may constitute a boundary if the surveyor who ran it erected monuments on it so as to constitute it a boundary. But he said it was his impression that a meander line along the Mississippi River "was not run in such a manner as to constitute the same a boundary."

[57] See 1923-24 Ops. Att'y Gen. 269.

In some cases the court has said simply that the riparian grantees acquired owner-

In an 1868 United States Supreme Court case, where it was contended that a tract of land in Minnesota as surveyed in 1847 "stopped at the meander-posts and the described trees on the bank of the river," the Court said that in surveying fractional portions of the public lands bordering upon navigable rivers, meander lines are not run as boundaries of tracts but to define the sinuosities of the stream banks and to ascertain the quantity of lands subject to sale and to be paid for. It added that "In preparing the official plat from the field-notes, the meander line is represented as the border-line of the stream, and shows, to a demonstration, that the watercourse and not the meander-line as actually run on the land, is the boundary."[58]

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ship of the bed of a navigable stream "unless the terms of the grant clearly denote the intention to stop at the edge of the river." See Braxon v. Bressler, 64. Ill. 488, 489 (1872) citing KENT, COMMENTARIES; Ballance v. City of Peoria, 180 Ill. 29, 36 (1899). In both cases the court concluded there was no intention to stop at the river's edge and hence the general rule applied. See also Canal Trustees v. Haven, 11 Ill. 554, 557 (1850).

[58] Railroad Co. v. Schurmeir, 74 U.S. 272, 284, 286-287 (1868). The latter quotation was quoted in Albany Bridge Co. v. People, 197 Ill. 199 (1902), which did not mention any possible exception where monuments are erected. See also Fuller v. Dauphin, *supra.*

In a federal case involving a meandered non-navigable Illinois lake the court also indicated that meander lines were run by federal surveyors for the purpose of getting the general contour of lakes or streams and that "the official plat made from such survey does not show the meander line but shows the general form of the lake deduced therefrom, and the surrounding fractional lots adjoining and bordering on the same. The patents when issued refer to this plat for identification of the lots conveyed, and are equivalent to and have the legal effect of a declaration that they extend to and are bounded by the lake or stream. Mitchell v. Smale, *supra,* 140 U.S. 406, 413 (1891). The court held that by Illinois law the grantees of lands adjoining the lake acquired ownership of its bed. (Later Illinois court cases, however, have held that such grantees did not acquire title to the bed, their ownership ending at the water's edge, and the United States Supreme Court permitted such rule to determine the effect of a federal grant in Hardin v. Shedd, as noted later.

For a federal case where a meander line was treated as a boundary, see Niles v. Cedar Point Club, 175 U.S. 300 (1899). Regarding a meander line run along a marsh bordering on Lake Erie in Ohio, the court said it "may not have been strictly a line of boundary . . . but it indicated that there was something that stopped the survey . . . Generally, these meander lines are lines which course the banks of navigable streams or other navigable waters. Here, it appears distinctly from the field notes and the plat that the surveyor, Rice, stopped his surveys at this 'marsh' as he called it. These surveys were approved and a plat prepared, which was based upon the surveys and field notes, and showed the limits of the tracts which were for sale. The patents, referring in terms to the survey and plat, clearly disclose that the Government was not intending to and did not convey any land which was a part of the Marsh."

See also the earlier discussion of Fuller v. Shedd, 161 Ill. 462, 476, regarding instances where meander lines may have been run at a considerable distance from the stream. But in Houck v. Yates, *supra,* the court held that a meander line which was run a small distance from the actual edge of the Mississippi River did not constitute a boundary line. See also Middleton v. Pritchard, 4 Ill. 509, 518.

The court in Railroad Co. v. Schurmeir, *supra,* pp. 273-274, discussed applicable federal legislation and noted that there apparently was no law requiring the meandering of watercourses, but the surveyor-general was required to ascertain the contents

While this and a number of other federal cases have indicated that meander lines ordinarily do not constitute boundaries nor determine navigability, federal courts nevertheless have indicated that state rules ordinarily may determine the effect of federal patents or grants, at least after statehood, if the federal government's intention is not otherwise shown, and the United States Supreme Court has permitted the Illinois courts' rule to determine that the federal grantee of lands adjoining a meandered non-navigable lake did not get title to its bed.[59] (This is discussed later under Federal Law Regarding Ownership of Beds.)

If the Illinois courts may apply the possible exception regarding monuments on meander lines it would be instructive to know what kind of monuments may constitute such an exception and to what extent such monuments may have been erected.

General instructions issued in 1834 to deputy surveyors in Illinois and Missouri provided, among other things, that all navigable rivers should be meandered and their width taken at those points where they are intersected by section or township lines, and at the intersection of such lines a post should be set and courses and distances given to two trees, or a mound erected if no such trees are available.[60] General instructions issued in 1856 contain similar instructions.[61]

The extent to which such instructions were faithfully followed has not been directly ascertained. General instructions issued in 1815 for surveying unsurveyed lands northwest of the Ohio River, including the Illinois Territory, appear not to have contained express instructions to erect any monuments on meander lines. Prior to 1815, instructions apparently were given to individual deputy surveyors by letter concerning the particular area which was to be surveyed at that time. The nature of any other general instructions or of special instructions for particular surveys regarding lands in Illinois has not been determined, nor has the number or

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of subdivisions and have plats made of lands surveyed and this "makes necessary an accurate survey of the meanderings of the watercourse, where a watercourse is the external boundary; the line showing the place of the watercourse, and its sinuosities, courses, and distances, is called the 'meander line.'" Albany Bridge Co. v. People, *supra,* 197 Ill. 199 (1902) also reviews applicable federal legislation.

In People v. Economy Light and Power Co., *supra,* at 314, the Illinois court noted that state legislation in 1839 regarding the reconveyance of lands received by the state for the Illinois and Michigan canal provided that "Lands situated upon streams which have been meandered by the surveys of public lands of the United States shall be considered as bounded by the lines of those surveys and not by the stream." But it concluded that this provision had been superseded by a later act which included no such provision.

[59] See Hardin v. Shedd, 190 U.S. 508 (1902).

[60] See General Surveying Instructions to Deputy Surveyors in Illinois and Missouri, received with letter for U. S. Surveyor General dated Jan. 9, 1834, pp. 8, 9. Examples of how the surveyor's field notes regarding such posts, bearing trees, and the courses and distances of the meander lines should be recorded were included on page 28 and elsewhere.

[61] See General Instructions to Deputy Surveyors for Surveying Public Lands and Private Confirmed Claims, Office of the Surveyor General for the States of Ill. and Mo., 1856, pp. 7, 8, 18 *et seq.*

extent of federal land grants that may have been affected by the various instructions.[62]

Plats and field notes prepared in compliance with the 1834 and 1856 instructions apparently would have included considerable data to show where such monuments were placed.[63] But in an Illinois case regarding earlier plats and field notes prepared in or before 1816, the court noted that while there was one existing "bearing tree" (which perhaps served as part of the description of a meander line in the surveyor's field notes), there was no line upon the maps or plats, directions in the field notes, nor "any other visible monument" to define an alleged boundary. The facts as shown in the bill of exceptions indicated that "the other lines of section thirteen, have no bearing trees or tangible limits, so far as appeared on the river; if any such there were, they seem to have been washed away."[64]

The Chief Waterway Engineer of the Division of Waterways, Department of Public Works and Buildings stated in 1958 that:

This office has found, in checking the official land survey records on file in the State Archives, that the original Government surveys of meander lines were marked and monumented at the time such survey was made. Whether such monuments or any replacement or re-establishment thereof are in existence today is unknown and could only be ascertainable through inspection or re-survey of such meander line.[65]

In speaking of a possible exception where monuments were erected on the meander line, it is not clear whether the court meant that the location of such monuments had to be presently ascertainable for the exception to apply. But it is quite possible that such an exception would only apply where the meander line itself would constitute a boundary. It appears that, to constitute a boundary, the actual location of the meander line as run on the ground ordinarily would need to be ascertainable from monuments or other reference points and directions included in the field notes keyed to the survey plat.

If the Illinois court, in mentioning a possible exception where monuments are erected on meander lines, had in mind monuments such as the

[62] A checking of the field notes regarding the meandering of a part of the Rock River in Winnebago County indicated that the surveyor had erected a post and/or stone at the intersection of section and meander lines. The Custodian of U.S. Surveys signed these pages of the survey in 1875. See Field Notes for Twp. 43N, R 1 E, pp. 44-48.

[63] For methods used to locate boundaries where the federal surveyor's monuments were lost (although these cases did not involve monuments on meander lines) see McClintock v. Rogers, 11 Ill. 279 (1849) cited in Sawyer v. Cox, 63 Ill. 130, 137 (1872).

[64] Middleton v. Pritchard, *supra,* at 510.

The first Illinois case quoted regarding the possible exception where monuments are erected on meander lines appears to have involved a special government survey made in 1816 of lands constituting the proposed route of the Illinois and Michigan canal. People v. Economy Light and Power Co., *supra,* decided in 1909. In another case mentioning such an exception, which was decided in 1876, the time when the survey in question was made did not appear, Houck v. Yates, *supra.* The court in both cases said there was no evidence of such monuments.

[65] Letter received from Thomas B. Casey, dated March 20, 1958.

surveyors were instructed to erect in the 1834 and 1856 instructions described earlier, it would seem from the foregoing discussion that such an exception conceivably could be applicable to many meandered rivers or streams in Illinois. However, from the court's language in some of the cases, such as in *Houck v. Yates,* quoted earlier, in speaking of monuments the court possibly had in mind only instances where certain *additional* monuments may have been erected on the meander lines in the government survey (that is, in addition to monuments at places where meander lines crossed section or township lines, etc.).[66] But this is not clear.

It would seem that the most likely instances of exceptions to the general rule that meander lines do not constitute boundaries along streams are instances where the surveyor's field notes, monuments, or plats *collectively* indicate an intention to have the meander line constitute a boundary. This is suggested by some of the court's statements quoted earlier.[67]

In any event, it should be noted that the foregoing general rules regarding ownership of beds may be complicated somewhat by such factors as state ownership of riparian land, and specific acts of Congress relating to the granting or sale of school, swamp, or canal lands.[68]

[66] See the quotation from Middleton v. Pritchard, *supra.* Moreover, in some instances monuments may have been later erected by a grantor of adjoining land so as to indicate by his conveyance an intention to have the meander line, rather than the stream itself, constitute the boundary of the land conveyed. In such cases, the grantor presumably would have retained ownership of the stream bed if he previously owned it. Piper v. Connelly, 108 Ill. 646, 654 (1884) dealt with a related question. There the court said: "Had it been intended the grantor was reserving to himself the ownership of the entire stream, the plat, to have been accurate, would have had another line, parallel to that indicating the line of its bank, and, consequently the boundary line."

[67] See the earlier quotations from Houck v. Yates and Middleton v. Pritchard, *supra.* See also McCormick v. Huse, *supra.*

The court also has referred to the possibility that meander lines may constitute boundaries if they were constructed on the survey plat rather than if their courses and distances were merely noted in the surveyor's field notes. See Fuller v. Dauphin, 124 Ill. 542, 546 (1888); Houck v. Yates, *supra;* Albany Bridge Co. v. People, *supra.* In Middleton v. Pritchard, 4 Ill. 509, 519 (1842) the court said "But the plats in the land office, and surveyor-general's office, have no line marking these courses and distances as a boundary. They are taken from the field notes of meandering, in the surveyor-general's office." See also Village of Brooklyn v. Smith, 104 Ill. 429, 437 (1882) where the court said "The Western line of Water street, as marked upon the original plat, is not a straight line, but an irregular, wavy line, denoting, as we take it, the meandering of the river, and thus indicating the river to be the boundary."

[68] Regarding state ownership of riparian land, see, *e.g.,* Ill. Ops. Att'y Gen., 1949, at 175.

Regarding swamp-land grants, see, *e.g.,* State v. New, 280 Ill. 393 (1917); Leonard v. Pearce, 348 Ill. 518 (1932); Daggett v. Wilkinson, 345 Ill. 244 (1931). For a discussion of swamp-land grants, see Federal Law Regarding Ownership of Beds, p. 82.

Regarding sales of canal lands, see, *e.g.,* People v. Economy Light and Power Co., 241 Ill. 290 (1909), discussed in a preceding footnote.

Regarding waters located in the 16th section of each township or on other lands granted to the state for the benefit of the inhabitants of such township for school purposes, see discussion of 1960 Ops. Att'y Gen. 165 under Jurisdiction over Public Waters, p. 116.

Municipal water use. In one appellate court case, the court suggested that a riparian municipal corporation might use water from a navigable watercourse even though it greatly depleted the supply for "artificial" uses to individual downstream riparian owners.[69] The court, in quoting from a Maine case,[70] said that the right of the people to an abundant supply of pure water to secure their health and cleanliness was paramount to the right of lower riparian owners to have water for power purposes. Relying on this quote, it held that the City of Elgin had a right to use the water of the Fox River for domestic, sanitary, and fire purposes, paramount to the right of a lower mill owner to use the water for power purposes. This case was appealed to the supreme court which affirmed the decision of the appellate court, but it did so solely on the ground that the plaintiff in the action was not the right party to maintain the suit.[71] The supreme court did not even refer to the preference grounds used by the appellate court in coming to its decision.

The appellate court was careful to point out that the watercourse involved (The Fox River) was navigable. It relied especially upon an act passed by the legislature in 1840 declaring that river to be navigable, and upon a supreme court case that had affirmed the legislative declaration of navigability and upheld the prosecution of a statute requiring the installation of fishways in dams.[72]

The court then declared:

> As by the act of 1840 the Fox River had become public in its use, the general public could not afterward be prohibited or curtailed in the use of the waters of the same by private owners of riparian rights who desired to make use of the same for their pecuniary gain, in propelling machinery.[73]

It continued by quoting the language of the *Evans* case with regard to the preference of natural uses over artificial uses,[74] and after quoting the Maine case, referred to above, concluded that for domestic, sanitary, and fire purposes, the city should be preferred.

The court's conclusion apparently turns on two points: the alleged navigability of the river, and the "domestic, sanitary, and fire purposes" which the court seems to classify as natural uses, for which the city was using the water. Thus, the court seems to be saying that the interest of the public in the waters of a navigable watercourse is such that a city has a right to supply its inhabitants with water to satisfy their natural wants and that this right is paramount to the right of private riparian proprietors

[69] City of Elgin v. Elgin Hydraulic Co., 85 Ill. App. 182 (1899).

[70] City of Auburn v. Union Water Power Co., 90 Me. 576, 38 Atl. 561 (1897). It should be noted that this case involved a "great pond" and the Maine court indicated that the laws regarding such ponds were peculiar to Maine and Massachusetts. With respect to such laws, see also Hardin v. Jordan, 140 U.S. 371 (1890).

[71] Elgin Hydraulic Co. v. City of Elgin, 194 Ill. 476 (1902).

[72] Parker v. People, 111 Ill. 581 (1884).

[73] City of Elgin v. Elgin Hydraulic Co., *supra,* at 193. *But see* People v. Economy Power Co., *supra,* to the effect that a legislative declaration could not make a non-navigable stream navigable.

[74] Evans v. Merriweather, *supra;* see The Extent of Riparian Rights, p. 26.

to use the water for artificial purposes. The court stated, at 191, that the city was a riparian owner by reason of its purchase of property along the river, but it did not expressly declare that this preferred right of use requires that the city be a riparian owner. It said, at 194, that "the right of the *public residing along* Fox river to take water out of the same for domestic, sanitary and fire purposes, is paramount to the right of owners of said water power to use the same for . . . their mills." (Emphasis added.)[75]

In contrast, the court stated that if the Fox River were a private stream, as contended by appellee's counsel, the city would be entitled to use only its proportional share of the waters of the river, thus suggesting that on a non-navigable stream the city would be limited to a proportionate share of the water based on all of the needs of the riparian proprietors.[76]

No other case in Illinois has indicated that the interest of the public in navigable waters might include such a preferred right of use by cities as is suggested by this opinion. On the contrary, they seem to indicate the opposite with respect to navigable streams, as public rights to use them have generally been limited to navigation.[77] There perhaps is a greater possibility of a municipal use preference regarding navigable *lakes* because, as discussed later, public rights therein often include public fishing and certain related rights, as well as navigation.[78] But the question of municipal rights to use lake waters has not been dealt with by the appellate courts.

It might here be noted that a doctrine of law in Illinois holding that cities are no different from individuals with regard to riparian rights, even on navigable waters, would not preclude them from utilizing natural watercourses as a source of supply for their inhabitants. They may purchase such rights from riparian landowners whose rights otherwise would be violated. Moreover, municipal corporations are, through legislation, given extensive eminent-domain powers for obtaining water supplies for their inhabitants.[79]

Certain legislation (ILL. REV. STAT. c. 19, § 65) requires the approval of any municipality which encompasses or adjoins a "public" body of water before the State Department of Public Works and Buildings may issue a permit to make nonriparian use of its waters. This tends to indicate that such municipalities have some preferred right to the water. Conversely, it tends to indicate that others besides municipalities may use such water on nonriparian lands, with the Department's permission, as it pro-

[75] See discussion under Use of Water on Nonriparian Land, p. 19, suggesting that the city's use might be considered a nonriparian use since the water may ultimately be utilized by persons not riparian to the source of supply.

[76] See earlier discussion of this case under Use of Water on Nonriparian Land.

[77] See the discussion of extent of public rights in navigable waters under the above section on the easement of navigation. See also discussion of municipal use of nonnavigable watercourses under Use of Water on Nonriparian Land.

[78] Also recall that in the *City of Elgin* case, *supra,* the court quoted from a Maine case dealing with a "great pond."

[79] See Eminent Domain, p. 225, for a discussion of these powers. See also Prescription, p. 50, regarding possibilities of acquiring prescriptive rights.

vides that such permits may be issued "for industrial, manufacturing or public utility purposes," providing such use does not interfere with navigation.[80] It is unclear, however, whether this may be done without the consent of other riparian proprietors whose rights may be infringed. The definition of a public body of water for this and other purposes is considered later. See Jurisdiction over Public Waters, *infra.*

Lakes and Ponds

A lake or pond is distinguished from a flowing stream or river by the difference in the motion of the water. The controlling distinction is that, in a stream, the water has a natural motion or a current, while in a pond or lake the water is, in its natural state, substantially at rest. And this is the distinction regardless of the size of the body of water.[1]

In *Trustees of Schools v. Schroll, supra,* the issue before the court was whether Meredosia Lake was a lake or a stream. It was a natural body of water, five or six miles long, in some places a mile in width. It was fed by springs. Its body, in its natural state, was without current. Its lower end was connected to the Illinois River by a slough through which a current of water passed during certain portions of the year. In holding that this was a lake and not a stream, the court said, at 521:

> Indeed, the controlling distinction between a stream and a pond or a lake is that in the one case the water has a natural motion — a current — while in the other, the water is, in its natural state, substantially at rest. And this is so, independent of the size of the one or the other. The flowing rivulet of but a few inches in width is a stream as certainly as the Mississippi. . . .
>
> And while it is obvious that a currentless body of water cannot be a stream, the fact of some current in a body of water, is not of itself, in every instance, sufficient to determine its character as a stream, as distinguished from a pond or lake. The presence of some current is not enough, alone, to work an essential change in so essentially different things as a stream and a lake, for a current from a higher to a lower level does not necessarily make that a stream or river which would otherwise be a lake; nor the swelling out of a stream into broad water sheets does not necessarily make that a lake which would otherwise be a river.

The court concluded that Meredosia Lake, because of its position, size, and character, was a lake and not a stream, even though, during a portion of the year, some part of its water flowed through the slough in its lower end into the Illinois River.[2]

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[80] Subject to this limitation, permission may be granted "to construct the necessary intakes, structures, tunnels and conduits in, under or on the beds of such bodies of water to obtain the use of such water or to return the same . . ."

[1] Trustees of Schools v. Schroll, 120 Ill. 509 (1887).

[2] See J. and C. R. R. Co. v. Healy, 94 Ill. 416 (1880) for additional discussion of this subject.

For some other examples of instances in which there may be a question as to whether a body of water is a lake or stream, or partly one or the other, see MEANDERED LAKES IN ILLINOIS, Ill. Dept. of Public Works and Bldgs., Div. of Waterways (1962), regarding Bay Creek, Peoria Lake, and meandered lakes and bays along the Mississippi River.

While the grantee of land bordering upon a stream or river ordinarily takes title to the bed to the center thread thereof, the grantee of land bordering on a lake or pond takes title to the bed only if the lake or pond has not been meandered,[3] and is non-navigable.[4] A rebuttable presumption arises that a lake is not navigable if it has never been meandered,[5] or referred to as being navigable in the federal surveys.[6] If the lake or pond has been meandered, or is navigable in fact,[7] the bordering owner takes title only to the usual watermark free of disturbing causes,[8] and title to the bed is in the state in trust for the people of the state.[9] Where the bordering owners own the bed of the lake, they own it according to their respective grants and are entitled to the exclusive possession of the portions owned by them respectively.[10]

The court gave the following reasons why the ownership of the beds of lakes and ponds are as above stated in *Wilton v. Van Hessen,* at 188:

Pursuant to the enabling act of April 18, 1818, Illinois was admitted into the Union upon the same footing with the original States, in all respects whatever. It will thus be seen that by its admission into the Union the State of Illinois became vested with the title to the beds of all navigable lakes and bodies of water within its borders, and whether or not title became so vested depended upon the test of navigability as applied to any particular body of water. As to what the policy of this State has become in respect to its title so acquired from the United States Government it is not necessary to discuss here, as that question has no bearing whatever upon the matters in controversy. The essential matter for determination here is whether the title to the bed of this pond ever became vested in the State of Illinois, or whether, upon the admission of this State into the Union, it was retained by the United States Government with full power to dispose of it, by patent or otherwise.

The only ground upon which the State of Illinois can now claim to own the bed of any pond or lake within its borders is under that clause of the enabling act which provided that the State should be admitted into the Union upon the same footing with the original States, in all respects whatever.[11] It

[3] Hammond v. Shepard, 186 Ill. 235 (1900); Fuller v. Shedd, 161 Ill. 462 (1896), *aff'd* in Hardin v. Shedd, 177 Ill. 123 (1898); and 190 U.S. 508 (1903). A list of meandered lakes and streams may be found in Appendix A.

In some instances the federal surveyors of Illinois lands had meandered certain areas as meandered lakes or other bodies of water, but this was not approved by their superiors and these areas were not designated as meandered lakes on the approved plats and surveys. See MEANDERED LAKES IN ILLINOIS, *supra.*

[4] Wilton v. Van Hessen, 249 Ill. 182 (1911).

[5] Leonard v. Pearce, 348 Ill. 518 (1932); State v. New, 280 Ill. 393 (1917).

[6] State v. New, *supra,* at 399.

[7] See earlier discussion of criteria for determining navigability of watercourses. See also Leonard v. Pearce and State v. New, *supra.*

[8] Seaman v. Smith, 24 Ill. 521 (1860); Brundage v. Knox, 279 Ill. 450 (1917).

[9] Hammond v. Shepard, *supra;* State v. New, 280 Ill. 393 (1917).

The Illinois Attorney General has expressed the opinion that the meandering of short sections of a lake, rather than running a continuous meander line, was sufficient to classify it as a meandered lake and vest title to its bed in the state. Letter opinion dated April 7, 1954, cited in 1959 OPS. ATT'Y GEN. at 165.

[10] Wilton v. Van Hessen, *supra.*

[11] This ignores the possibility of the state's later acquiring such ownership by purchase or eminent domain. (Authors' footnote.)

could only acquire such title by virtue of that clause upon its admission into the Union, and, as has been pointed out, title by virtue of that clause was acquired only to the bed of such lakes as were navigable. There is no exception to this policy, unless it be the apparent exception in cases where the government has meandered lakes or ponds and shown the same on its surveys by meandered lines, in which cases we have repeatedly held that the title to the bed of such lakes or ponds is in the State in trust for the people, and that the shore owners, whether the lake be navigable or nonnavigable, take title to the water's edge. . . . This exception to the general policy — if, indeed, it be an exception — is undoubtedly based upon the ground that the Federal government, by its act in meandering a lake, indicates that it is a navigable body of water, concedes that the title to the bed of the same is in the State, and by selling or otherwise disposing of the surrounding lands as bounded by the edge of the water, abandons all claim to the bed.[12]

In an earlier case holding to the general rule that the state owns the bed of meandered lakes, even though they are in fact non-navigable, the court said:

If we depart from the reasonable rule we have established, the small nonnavigable lakes would become the private waters of riparian owners, pertinent to their lands, with exclusive rights thereon as to boating, fishing, and the like, from which the body of the people would be excluded — a principle inconsistent with and not suited to the condition of our people, nor called for as a rule of law.[13]

In a later case the court said that:

It is a general rule that in cases where the government has meandered a lake and shown the same on its survey by meander lines the title to such lake is vested in the State in trust for the people.

The court held, however, that meander lines do not create ownership in the state if they were run around an area where no body of water has existed.[14]

The court also said, "The surveyor can not, however, by making meander lines on a plat create a permanent body of water where, in fact, no water exists or ever existed." It added, quoting from federal cases, that

the surveyor . . . was not invested with power to determine the character of the land . . . or to classify it as within or without the operation of particular laws. All that he was to do in that regard was to note and report its character as it appeared to him, as a means of enlarging the sources of information upon that subject otherwise available . . . where . . . a meander line is through fraud or error mistakenly run because there is no such body of water . . . upon the discovery of the mistake it is within the power of the land department

[12] This was quoted in Ops. Att'y Gen., 1959, at 165. The soundness of the view that meandering has such a binding effect, even though the lake is in fact nonnavigable, was criticized in 11 Ill. L. Rev. 540, 556, *et seq.* (1917).

The views expressed by federal courts are considered under Federal Law Regarding Ownership of Beds, p. 82.

[13] Fuller v. Shedd, 161 Ill. 462 (1896).

[14] People v. Hatch, 350 Ill. 586, 590-591 (1932). See also Ops. Att'y Gen., 1955, at 191.

of the United States to deal with the area which was excluded from the survey, to cause it to be surveyed and to lawfully dispose of it.

This case involved an action to quiet title to certain lands.

Owners of land bordering on a non-meandered, non-navigable lake or pond have riparian rights to the same extent as owners of land bordering on a non-navigable stream.[15] The court has indicated that riparian owners surrounding such a pond had the right to exclude others from boating, fishing and hunting in the waters.[16] In one case the court said that each riparian owner was entitled to the exclusive possession of the portions of the bed each owned, although the dispute apparently was with outsiders who were using the pond rather than among themselves.[17] In another case, persons who owned most of the bed of a non-navigable and non-meandered lake were held entitled to exclude owners of lands adjoining the lake from using the waters overlying their lands for boating, fishing, hunting, bathing and other similar uses.[18]

It would seem that if a natural lake or pond that is non-navigable and non-meandered is located entirely upon the land of one owner (or co-

[15] These are sometimes called "littoral rights," but are usually referred to as "riparian rights" by the Illinois courts. The reported court decisions have never indicated a difference in rights of riparian owners on streams or rivers and those on lakes and ponds (except with regard to navigable waters, discussed earlier) but have often spoken of riparian rights to both in the same context. See 1955 Ops. Att'y Gen. 187; People v. Hatch, 350 Ill. 586 (1932); Schulte v. Warren, *supra;* Wilton v. Van Hessen, *supra;* Fuller v. Shedd, *supra.*

[16] In Beckman v. Kreamer, 43 Ill. 447 (1867) the court held that fishermen who had fished from boats in a small lake had wrongfully trespassed thereon. See also Wilton v. Van Hessen, *supra* (involving rowing, sailing, hunting, and fishing).

See discussion of riparian and bed ownership rights under Navigable Waters, *supra,* regarding possibilities of others having rights to use the water through "well-established usage" or dedication to public use.

[17] Wilton v. Van Hessen, *supra* at 184, 189. See also Schulte v. Warren, *supra,* and Leonard v. Pearce, 348 Ill. 518 (1932).

It may be noted that in some states courts have held that the owners of the bed of such a lake or pond may collectively use its entire water surface, not just the water overlying their respective portions of the bed. See, *e.g.,* Johnson v. Siefert, 100 N.W. 2d. 689, 694-697 (Minn. 1960).

[18] Leonard v. Pearce, 348 Ill. 518 (1932).

In this case, which involved a 235-acre lake, tracts comprising portions of the lake bed had been conveyed by two different federal patents and the present owners of the tracts claimed and were granted the right to exclude others from using the waters overlying their lands. See pp. 521-522.

In Wilton v. Van Hessen, *supra,* the complainants owned adjoining town lots, a portion of each being covered by the pond, and claimed the right to exclude the defendants from going upon the waters overlying their respective lots. See pp. 183-184. The court said, at 189, that "According to the allegations of the bill the complainants own the bed of this pond according to their respective grants and are entitled to the exclusive possession of the portions owned by them, respectively."

In an earlier case the United States Supreme Court said that common-law rules apply in Illinois regarding the ownership of beds. Hardin v. Jordan, 140 U.S. 371, 397-8, 401-2 (1891). The court decided that the plaintiff who owned fractional sections adjoining a rather large and meandered but non-navigable lake owned the bed of the lake in front of his fractional sections to the center of the lake (see pp. 373, 401-402).

owners) he ordinarily may use it about as he sees fit.[19] However, if it is naturally connected with a natural watercourse, certain rights to use it, particularly regarding withdrawal of its waters, may be affected by the rights of riparian owners along the watercourse.[20] (Questions regarding artificial rather than natural lakes and ponds are discussed elsewhere.)[21]

If a lake or pond is meandered or navigable, as a general rule the bed is owned by the state and the rights of hunting, fishing, boating, and other rights incident to the ownership of the underlying soil of a watercourse are held by the state in trust for the use of the people of the state. The riparian owner has these rights only as a member of the public.[22] But the riparian proprietor stands in a preferred position to the public by virtue of the location of his land since he retains an exclusive riparian right of access to the water from his land. He can take advantage of this right in his participation as a member of the public, in the rights of use that exist as an incident of the public ownership of the underlying soil.[23]

In one case, the court held that private owners of certain portions of the submerged lands under a navigable lake, although subject to the public easement of navigation, could exclude others from fishing and hunting over their submerged lands.[24]

But its conclusion that the Illinois riparian grantees of land adjoining a *meandered* non-navigable lake acquired title to the bed was held to have been erroneous in Fuller v. Shedd 161 Ill. 462 (1896) and this was affirmed by the United States Supreme Court in Hardin v. Shedd, 190 U.S. 508 (1902), as discussed under Federal Law Regarding Ownership of Beds, p. 82.

In Beckman v. Kreamer, *supra,* the court noted simply that the plaintiffs "showed either a legal or equitable title to the lands on which the lake was situate, and actual possession and cultivation of the adjacent lands described in the title papers they exhibited." It held they could maintain a trespass action against strangers who fished in the small lakes.

[19] Some small ponds might be regarded as collections of "surface water." See Surface Water, p. 137. See also Springs, p. 136.

[20] And also certain public rights if it is a navigable watercourse. See earlier discussions of rights in non-navigable and navigable watercourses.

[21] See especially the earlier discussions of artificial watercourses and developed or added waters, and Surface Water, p. 137.

[22] Schulte v. Warren, *supra,* 218 Ill. at 117, 123, and 124.

[23] *Ibid.* He also retains the right to accretions as an incident of realizing this right of access. See Miller v. Comm's of Lincoln Park, 278 Ill. 400 (1917).

See the earlier discussion of possible exceptions to the general rules such as where the state owns riparian land or specific statutes relating to swamp or canal lands are involved.

[24] Schulte v. Warren, *supra.* Here the submerged lands formerly bordered on the navigable lake but were overflowed by reason of artificial improvements in connecting waters. See note 11, p. 62.

In a later case, Leonard v. Pearce, *supra,* 348 Ill. 518, owners of lands adjoining a lake claimed they had rights as members of the public to use the entire lake (claimed to be navigable) for boating, fishing, hunting, bathing, and other similar uses. But, the lake being found non-navigable and non-meandered, the defendents who held title to most of the lake bed under swampland and other federal grants were found entitled to exclude them from making such uses of the waters over their portions of the bed.

The court said that "the primary issue in this case, as held by the chancellor, is

The court in 1898 indicated that a riparian landowner along a navigable lake (Lake Michigan was involved) had no right to build piers out into the lake onto the state-owned bed, at least where this caused injury to the state's rights by causing accretions of soil to build up along the shore. The court noted that riparian landowners along navigable lakes do not hold the same rights as those bordering navigable rivers, to wharf out to the point of practical navigability,[25] because the state owns the beds of navigable lakes.[26]

The question of the extent to which the state may permit such encroachments upon navigable bodies of water whose beds it owns, and the nature of its trust responsibilities concerning such beds and waters is discussed elsewhere.[27]

Federal Law Regarding Ownership of Beds[1]

This is a rather complicated subject and the federal law appears to be rather unsettled regarding some questions. Nevertheless, the following introductory statements summarize some facets of the subject that appear to be particularly significant for Illinois. These will later be developed in more detail and with greater accuracy, including necessary qualifications.

Upon statehood, the State of Illinois acquired ownership of the beds of all navigable waters but none of the non-navigable waters within its boundaries, with some exceptions. For this purpose, navigability is to be determined by federal criteria, which, however, appear generally to correspond with criteria that have been employed in the reported Illinois court decisions.

The interpretation and effect of federal patents also is a matter of federal law. However, as to patents issued after statehood, if the patent, applicable legislation, or other circumstances do not indicate a contrary

whether the lake is navigable, or to the same ultimate effect, is it a public body of water?" Such determination apparently was for the purpose of determining whether bed ownership was in public or private hands and thereby to determine water-use rights. (The complainants alleged the federal grants of title to the bed were invalid because the lake was navigable.) If it perchance was made for the purpose of directly determining whether there were public water-use rights in the lake, the court was thereby ignoring its earlier implication in the *Schulte* case, *supra,* that such water-use rights, aside from navigation, may be in the owner of any underlying privately-owned beds rather than the public even if the lake were navigable.

(See the earlier discussion of the *Schulte* case in note 23, p. 64. The court did not discuss or cite the *Schulte* case.)

[25] See Easement of Navigation, p. 65.

[26] Revell v. People, 177 Ill. 468 (1898), cited, among other later cases, in Comm'rs of Lincoln Park v. Fahrney, 250 Ill. 256 (1911); Brundage v. Knox, 279 Ill. 450 (1917).

[27] See Navigable Waters, p. 60, and State Jurisdiction over Natural Watercourses, p. 109.

[1] In addition to other sources consulted, the authors have benefited from a review of the unpublished results of research conducted by the University of Wisconsin in a study of water laws in four midwestern states, done under contract for the U. S. Dept. Agr. under the supervision of J. H. Beuscher, Professor of Law.

intention, their effect will be determined in accordance with the laws of the state where the land lies. The effect of federal patents before statehood is less clear. It appears that state laws often may be applied to them also, so as to retroactively relinquish ownership of beds of navigable streams to riparian grantees, but not so as to deny to riparian grantees the ownership of beds of non-navigable waters acquired under laws applicable in the territory before statehood. The construction and effect of conveyances of riparian lands or beds after they left federal ownership is generally governed by state law, although subject to continuing effects of the early federal patents or grants as beginning links in the chain of title.

Based upon the foregoing general statements, it appears that, so far as federal law is concerned, the Illinois courts could relinquish the state's ownership of the beds of navigable streams to riparian landowners, as they apparently have generally done. Also, the Illinois court's general rule that the grantees of lands adjoining meandered non-navigable lakes did *not* acquire ownership of their beds may be allowed to preclude such ownership where the federal patents to such lands were made after statehood. However, as the state ordinarily did not acquire ownership of the beds of waters that were non-navigable at statehood, the beds of such lakes ordinarily may still be owned by the federal government — unless they were conveyed to the state under the Swamp Land Act of 1850. It appears that they ordinarily were *not* conveyed under that Act. To the extent that the state may have acquired title under that Act, it reconveyed such lands to the counties under an 1852 Illinois act and related statutes, and the counties may have reconveyed them to private persons. By applying the usual Illinois rule, the courts might rule that, when a county thereby conveyed lands adjoining a meandered non-navigable lake, it retained title to the bed. The state may still be able to request conveyance under the Swamp Land Act of the beds of such lakes as may still be owned by the federal government, but if it does, the ownership might be reconveyed to the counties under the 1852 Illinois act unless state legislation is enacted to prevent it.

Such matters will now be considered in greater detail.

The United States Supreme Court in *United States v. Oregon* said:[2]

> . . . upon the admission of a State to the Union, the title of the United States to lands underlying navigable waters within the States passes to it, as incident to the transfer to the State of local sovereignty. . . . But if the waters are not navigable in fact, the title of the United States to land underlying them remains unaffected by the creation of the new State. . . . Since the effect upon the title to such lands is the result of federal action in admitting a state to the Union, the question, whether waters within the State under which the lands lie are navigable or non-navigable is a federal, not a local one. It is, therefore, to be determined according to the law and usages recognized and applied in the federal courts, even though, as in the present

[2] 295 U. S. 1, 14 (1934); See also United States v. Utah, 283 U.S. 64, 75 (1930); United States v. Holt State Bank, 270 U.S. 49, 55 (1925); Laurent, *Judicial Criteria of Navigability in Federal Cases,* 1953 Wis. L. Rev. 8, 32.

case, the waters are not capable of use for navigation in interstate or foreign commerce.[3]

In determining whether the waters in question were navigable for such purposes, the Court in an earlier case (*United States v. Utah*) applied the general test of whether at the time of statehood they were used or were capable of being used in their natural and ordinary condition as highways for commerce in the customary modes of trade or travel over water.[4] It said that while this is the crucial question, evidence of actual navigation before or after statehood is relevant, and the later needs of commerce, not just those existing at statehood, could be considered.[5]

These criteria appear generally to correspond with the criteria the Illinois courts have employed in such cases, and the Illinois courts have frequently cited federal courts as authority for the criteria used. The Illinois courts have generally said that only the natural condition of a watercourse, without possibilities of artificial improvements, could be considered.[6] Federal courts also have emphasized the natural or ordinary condition of a watercourse for such purposes. But federal courts often have cited and used or adapted criteria employed for one purpose for other purposes, making it rather difficult to ascertain whether and how criteria employed for one purpose may differ from criteria used for other purposes. For some other purposes it has allowed consideration of possibilities of artificial improvement, and may have hinted in one case that it might do so in determining navigability for bed-title purposes. But it does not appear to have yet done or said this in any case involving bed-title questions.[7]

[3] The court added that it was not without significance that the waters in question had been declared non-navigable both by the Secretary of the Interior and the Oregon courts. 295 U. S. 1, 15, 23 (1930).

[4] See also United States v. Appalachian Power Co., 311 U.S. 377, 408 (1940); United States v. Holt State Bank, 270 U.S. 49 (1926).

It appears that use for logging may be considered in timber regions. See United States v. Utah, 283 U.S. 64, 73, 79, 89 (1874); Waite, *Pleasure Boating in a Federal Union,* 10 (3) Buffalo L. Rev. 427, 433 (1961).

[5] 283 U.S. 64, 75-76, 82-83 (1931).

[6] See Navigable Waters, p. 60.

[7] In United States v. Appalachian Power Co., 311 U.S. 377, 407-409 (1940), which involved the question of navigability for commerce regulation, not bed-title, purposes (see Federal Matters, p. 230), the court said that "Natural and ordinary condition" (citing United States v. Oregon which was a bed-title case) "refers to volume of water, the gradients and the regularity of the flow. A waterway, otherwise suitable for navigation, is not barred from that classification merely because artificial aids must make the highway suitable for use before commercial navigation may be undertaken. Congress has recognized this in § 3 of the Water Power Act by defining 'navigable waters' as those 'which either in their natural or improved condition' are used or are suitable for use. . . . there are obvious limits to such improvements as affecting navigability . . . There must be a balance between cost and need at a time when the improvement would be useful. . . . Improvements that may be entirely reasonable in a thickly populated, highly developed, industrial region may have been entirely too costly for the same region in the days of the pioneers. The changes in engineering practices or the coming of new industries with varying classes of freight may affect the type of the improvement. Although navigability to fix ownership of the river

Although the state acquired title to the beds of such navigable waters upon statehood, the Illinois courts have adopted the general rule that the beds of rivers and streams, whether navigable or not, belong to the owners of riparian lands.[8] By adopting this rule, the courts have relinquished to riparian landowners the ownership of the beds of navigable rivers and streams. So far as federal law is concerned, a state apparently may grant to private persons its ownership of the beds of such waters (subject to paramount powers of the federal government to control or improve the waters for interstate commerce and perhaps other purposes[9] and possibly subject to certain public trust responsibilities.[10]

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bed or riparian rights is determined . . . as of . . . the admission to statehood . . . navigability, for the purpose of the regulation of commerce, may later arise . . ." Justice Roberts, who dissented from the Court's opinion, said at 432 that "natural and ordinary conditions" as settled by previous decisions meant all conditions, including falls, rapids, and obstacles that may make navigation a practical impossibility. He complained that "the court now, however, announces that 'natural and ordinary conditions' refers only to the volume of water, gradients, and regularity of flow. No authority is cited and I believe none can be found for thus limiting the connotation of the phrase."

Such language makes it problematical whether the court also would consider possibilities of artificial improvement for bed-title purposes. It might be reluctant to do so for the reason that this might raise doubts regarding the validity of numerous bed titles having previously passed into private ownership or thought to have done so. See Federal Matters, *infra,* regarding tests of navigability for commerce regulation purposes.

For a state court decision treating the above *Appalachian Power Co.* case as adding possibilities of artificial improvement to the federal test of navigability for bed-title (as well as commerce regulation) purposes, see Bingenheimer v. Diamond Iron Mining Co., 237 Minn. 332, 351-354 (1953). For the contrary view that the case has no bearing on bed-title questions, see Strand v. State, 16 Wash. 2d. 107, 127 (1943). The United States Circuit Court of Appeals, 10th Circuit, recently applied the "natural and ordinary condition" test of navigability for bed-title purposes, citing the *Appalachian Power Co.* case (and prior United States Supreme Court cases) as support, without discussing the troublesome language in the *Appalachian* case. Utah v. United States, 304 F. 2d. 23 (1962); *cert. denied* by United States Supreme Court, 371 U.S. 826 (1962).

[8] With the possible exceptions noted under Ownership of Beds of Navigable Streams, p. 67.

[9] Discussed under Federal Matters, p. 230. See United States v. Holt State Bank, 270 U.S. 49, 55 (1926); Hardin v. Jordan, 140 U.S. 371, 381-382 (1891). It may be further noted that in a case involving the Chicago River, the United States Supreme Court said that under Illinois law riparian owners own the lands under navigable rivers. But this ownership is "subject to the paramount right of the Government to use the same and to make improvements therein for purposes of navigation, without payment of compensation. . . . Included in such permissible improvement is dredging for the purpose of deepening the channel. . . ." Tempel v. United States, 248 U.S. 121, 129 (1918). In a later case the Court indicated that all lands within the ordinary high-water mark of a navigable river are subject to such paramount rights of the federal government. United States v. Chicago, Milwaukee, St. Paul and Pacific R.R., 312 U.S. 592 (1941).

[10] In one line of cases, including Ill. Central R.R. v. Illinois in 1892 dealing with Lake Michigan at Chicago (146 U.S. 387), the Court has expressed the view that the title to beds under navigable waters acquired by the states upon statehood are to be held in trust for the use of the people of the state for navigation *and other public purposes* and this trust cannot be relinquished by transferring the title to private

(footnote 10, continued)
persons or others. Under this view, the beds may not be granted to private persons except to be used for the improvement of such public use or so as not to substantially impair it. This doctrine appears to have been particularly applied to the Great Lakes and to seacoast harbors and other tidal waters. See Ill. Central R.R. v. Illinois, *supra,* pp. 452-453. See also Scott v. Lattig, 227 U.S. 229, 242-243 (1913); United States v. Mission Rock Co., 189 U.S. 391, 406 (1903); Smith v. State of Maryland, 59 U.S. 71, 74 (1855); Martin v. Waddell, 14 U.S. 345, cited in the *Illinois Central* case at 456; 2 MINN. L. REV. 429, 444 *et seq.* (1918).

In the *Illinois Central* case the Court said "It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties . . ." and added that "General language sometimes found in opinions of the courts, expressive of absolute ownership and control by the State of lands under navigable waters, irrespective of any trust as to their use and disposition, must be read and construed with reference to the special facts of the particular cases. . . . The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers. . . ."

The Court applied this doctrine to Lake Michigan and concluded that the Illinois legislature could not grant a sizeable part of the Chicago harbor area to the Illinois Central Railroad Company. The Court said (146 U.S. at 455 and 460) "Any grant of the kind is necessarily revocable. . . . Undoubtedly there may be expenses incurred in improvements made under such a grant which the State ought to pay: but, be that as it may, the power to resume the trust whenever the State judges it best is, we think, incontrovertible. . . . We hold . . . that any attempted cession of the ownership and control of the State in and over the submerged lands in Lake Michigan, by the act of April 16, 1869, was inoperative to affect, modify or in any respect to control the sovereignty and dominion of the State over the lands, or its ownership thereof, and that any such attempted operation of the Act was annulled by the repealing Act of April 15, 1773, which to that extent was valid and effective."

This case appears to have dealt directly only with the question of the impairment of navigation, not fishing rights, in Lake Michigan. In Scott v. Lattig, *supra,* the Court said the states acquired ownership of the beds of navigable waters "subject always to the rights of the public in such waters and to the paramount power of Congress to control their navigation . . . for the regulation of commerce among the States and with foreign nations. . . ." citing the *Illinois Central* case and other cases. This case involved the Snake River in Idaho. It was not necessary, however, for the Court to deal with this question as it concluded that an island in dispute had not passed to the state on statehood. The early case of Smith v. Maryland, *supra,* dealt with the Chesapeake Bay. The Court said that whatever bed the state owned was held by it "not only subject to, but in some sense in trust for, the enjoyment of certain public rights, among which is the common liberty of taking fish, as well shell-fish as floating fish." The case dealt with a state statute prohibiting a certain method of dredging for oysters which had been enforced against one doing this in the Bay. But the Court upheld the statute and held that the law was "not in conflict with, but in furtherance of, any and all public rights of taking oysters, whatever they may be. . . ."

The still earlier case of Martin v. Waddell, *supra,* also directly involved the question of a public trust for fishing purposes, although, like the *Maryland* case, it dealt with oyster fishing in tidewaters (in New Jersey). Here the plaintiff had claimed *exclusive* fishing rights in waters overlying a part of the bed by virtue of a grant of the bed under charters granted by the King of England to the Duke of York to enable the Duke to plant a colony in America (see 14 U.S., pp. 346-347). The Court held that under the public trust doctrine the grantee of the bed obtained no exclusive fishing rights.

But what about the effect of federal patents or grants of adjoining lands before or after statehood? With respect to such matters, the United States Supreme Court in *United States v. Oregon* said that federal laws control the disposition of title to its lands, the states are powerless to place any restriction on such control, and the contruction of federal grants of land is a federal rather than a state question. But the construction of federal grants may involve consideration of state law "insofar as it may be determined as a matter of federal law that the United States has impliedly adopted and assented to a state rule of construction as applicable to its conveyances." It added that "if its intention be not otherwise shown[11]

If the public trust doctrine as described above in the quotation from the *Illinois Central* case were strictly applied, this conceivably could materially limit the power of state courts or legislatures to allow the beds of navigable streams or lakes to be conveyed into private ownership. But there have been a number of other federal cases approving of such transfer of beds under inland streams or small lakes subject only to the powers of Congress under the commerce clause of the Constitution. Hence, the public trust doctrine apparently has presented little or no barrier in this regard. For example, in a case involving the Mississippi River, the Court applied the Illinois rule that riparian landowners acquired ownership of the bed of navigable streams and made no reference to the public trust doctrine mentioned in the *Illinois Central Railroad* case. St. Louis v. Rutz, 138 U.S. 226, 242 (1891). See also dicta in Hardin v. Jordan involving a non-navigable lake in Illinois, 140 U.S. 371, 380-384 (1891); Kankanna Water Power Co. v. Green Bay and Mississippi Canal Co., 142 U.S. 254, 272 (1891); Fox River Co. v. Railroad Comm. of Wis., 274 U.S. 651, 655 (1927); Barney v. Keokuk, 94 U.S. 324, 338 (1876).

In Shively v. Bowlby, 152 U.S. 1, 43-47 (1894), involving tidewaters of the Columbia River in Oregon, the Court spoke approvingly of its prior decisions allowing states to relinquish ownership of the beds of navigable waters to riparian owners, including St. Louis v. Rutz, *supra.* It said that if the states "choose to resign to the riparian proprietor rights which properly belong to them in their sovereign capacity, it is not for others to raise objections" and added that the *Illinois Central Railroad* case, *supra,* recognized that the beds of tidewaters and navigable lakes belong to the states "with the consequent right to use or dispose of any portion thereof, when that can be done without substantial impairment of the interest of the public in such waters" and subject to the right of Congress to control navigation.

It may be noted that in a recent case before the Illinois court involving Lake Michigan, it was contended that the state holds lands under navigable waters in trust for the purposes of navigation, commerce, and fishing. The court said it felt the trust was for broader purposes but it limited its decision to a finding that the City of Chicago's construction of a water filtration plant in the Chicago harbor under enabling legislation did not violate it. It cited the *Illinois Central Railroad* case, not with respect to the public trust, but only as support for its assertion that disposition of bed title is subject to the commerce powers of Congress and that it is only substantial interference or obstruction with practical navigation on Lake Michigan that will be protected against, noting that the Secretary of the Army had authorized the filtration plant. It added that "So long as any disposition does not interfere with the right of navigation no Federal question is involved." Bowes v. Chicago, 3 Ill. 2d. 175, 185-188, 204-5 (1954), *cert. denied* 348 U.S. 857. The Illinois court apparently was referring to the state's public trust responsibilities regarding Lake Michigan and other navigable lakes in Illinois, as discussed earlier under (State) Jurisdiction over Navigable Waters, and seems to have been considering it simply as a question of state law. In preparing this discussion of the public trust doctrine, the authors have benefitted from unpublished research conducted by F. K. Koepcke, law student at U. of Wis.

[11] In Oklahoma v. Texas, 258 U.S. 574, 594 (1922) the Court indicated such intention might be shown by a statute, treaty, or the terms of its patent.

it will be taken to have assented that its conveyance should be construed and given effect in this particular according to the law of the state in which the land lies."[12] It noted that this was the effect of its decisions in three previous cases (including *Hardin v. Jordan* arising from Illinois).[13]

The Court here appears to have been speaking primarily about federal grants of lands adjoining non-navigable waters *after* statehood.[14] In an earlier case involving a federal grant of land adjoining the tidewater of a navigable river in Oregon before statehood, the Court indicated that such grants ordinarily would be interpreted as retaining the bed for the benefit of the state to be (unless a contrary intention was clearly manifested).[15] But it went on to consider whether the bed would have passed with such a conveyance under the law of the State of Oregon and concluded that it would not have done so.[16] The Court's language suggests it may have construed the grant as conveying title to the bed if the state law would have done so.[17] Moreover, in a later case regarding a federal patent issued in 1833, which was before Michigan became a state in 1837, the Court applied the Michigan court's existing rule that grants of riparian lands along navigable streams ordinarily convey title to its bed, and indicated that state

[12] This language differs from the Court's earlier statement in a case arising from Illinois that the effect of grants of lands adjoining navigable or non-navigable waters is to be determined by state law and that the federal government is in the position of a private owner so far as its conveyances of land adjoining non-navigable waters is concerned. Hardin v. Shedd, 190 U.S. 508, 519 (1902). Such views were opposed by two dissenting Justices in that case and in Kean v. Calumet Canal Co., 190 U.S. 452 (1902). But they were repeated in United States v. Champlin Refining Co., 156 F. 2d. 769, 773 (1946), *aff'd* without commenting on this, in 331 U.S. 778 (1947).

[13] 295 U.S. 1, 27-28 (1934), citing Hardin v. Jordan, 140 U.S. 371 (1891), discussed later. See also Norton v. Whiteside, 239 U.S. 144, 153 (1915) in which the court said state laws controlled even where the contesting federal grantees were on opposite sides of a boundary river and hence located in different states.

[14] And each of the three cases that it cited, as noted above, involved such grants, each relating to the same non-navigable lake.

[15] Shively v. Bowlby, 152 U.S. 1, 47-48, 58 (1894). [See also United States v. Holt State Bank, 270 U.S. 49, 54-55 (1926) which involved questions regarding an Indian reservation adjoining a navigable lake.] The court, pp. 32-33, cited in this connection acts of Congress for the sale of public lands providing "that all navigable rivers within the territories to be disposed of by virtue of this act shall be deemed to be and remain public highways." It also cited somewhat similar statements in the Northwest Ordinance, discussed later, and acts admitting Louisiana and Mississippi into the Union. See 43 U.S.C.A. sec. 931 regarding the quoted provision.

[16] 152 U.S., pp. 51-52.

[17] *Id.* at 51 and 58; the Court said: "It is evident, therefore, that a donation claim under this act, bounded by the Columbia River, where the tide ebbs and flows, did not, *of its own force,* have the effect of passing any title below high water mark. *Nor is any such effect attributed to it by the law of the State of Oregon.* . . . Grants by Congress of portions of the public lands within a territory to settlers thereon, though bordering on or bounded by navigable waters, convey, *of their own force,* no title or right below high water mark, and do not impair the title and dominion of the future State when created; but leave the question of the use of the shores by the owners of the uplands to the sovereign control of each State, subject only to the right vested in the Constitution in the United States." (Emphasis added.)

rules ordinarily would determine such questions where no contrary federal intent has been manifested.[18]

However, in a case decided in 1946 by a lower federal court, which was affirmed by the Supreme Court, the court concluded that federal patents issued before statehood were to be construed according to the law in effect in the Oklahoma Territory, said to be the common law, by which the patentees took title to the bed of a stream non-navigable by federal criteria at the location in question, and denied the state's claim of bed ownership made on the ground that the stream had been said to be navigable by the state supreme court.[19] It said: "We conclude that when the trust patents were issued, they conveyed the title to the center of the Arkansas River and that the State of Oklahoma could not, by legislative fiat or judicial decision, take from the Indian allottees what the United States had conveyed to them before Statehood."[20]

[18] Grand Rapids and Indiana R. R. Co. v. Butler, 159 U.S. 87 (1895), citing Shively v. Bowlby (the case above arising from Oregon) and other cases. The Court, however, did not expressly mention that the grant occurred before statehood.

In another case the Court allowed the application of the Kansas court's rule, that riparian grantees ordinarily do *not* acquire title to the bed of a navigable stream, to a federal grant noted to have been before statehood. It rejected the contention that since the Kansas Territory had adopted the common law the grant was governed by the English rule that riparian grantees hold title to the bed of nontidal streams. It could have reached the same result, however, by applying the doctrine announced in other federal cases, discussed *supra,* that federal grants of lands along watercourses navigable in fact ordinarily would not convey bed ownership because such ownership was retained for the benefit of the future state. Wear v. Kansas, 245 U.S. 154 (1917).

[19] In another case involving federal grants before statehood of lands along the Mississippi River in Minnesota, the Court cited a 1796 federal statute applicable to the Northwest Territory (1 STAT. 468; see 43 U.S.C. sec. 931, cited *supra*) which provided that "all navigable rivers, within the territory . . . shall remain and be deemed public highways: And that in all cases, where the opposite banks of any stream, not navigable, shall belong to different persons, the stream and the bed thereof shall become common to both."

The Court said ". . . the court does not hesitate to decide, that Congress in making a distinction between streams navigable and those not navigable, intended to provide that the common law rules of riparian ownership should apply to lands bordering on the latter, but that the title to lands bordering on navigable streams should stop at the stream . . ." although this case involved a navigable stream and hence dealt directly only with the part of the quoted statute dealing with navigable streams. Railroad Co. v. Schurmeir, 7 Wall. (U.S.) 272, 285, 288 (1868).

[20] United States v. Champlin Refining Co., 156 F. 2d. 769, 775 (1946). The court said at 773, that federal dispositions of tribal lands of Indians are subject to the same general rules as other federal grants. See also Oklahoma v. Texas, 258 U.S. 574, 595 (1922).

On appeal, the Supreme Court in 331 U.S. 788 affirmed this lower federal court's opinion, without comment other than to cite its prior opinions in Oklahoma v. Texas, *supra,* and Brewer-Elliott Oil Co. v. United States, 260 U.S. 77 (1922). The *Oklahoma* case likewise involved federal grants before statehood. But this fact was not stressed and the Court, at 596, spoke of Oklahoma law since statehood, said to be the common-law rule as to beds of non-navigable streams. A state court's opinion that the stream was navigable was held, at 591, not to be binding on the federal courts. This case indicates that the same (common-law) rule would have applied to federal grants along non-navigable streams in Oklahoma both before and after statehood,

The latter case suggests that a federal grant of land adjoining a *non-navigable* watercourse (by federal criteria) before statehood (if the federal government's intent is not shown to be otherwise) will be construed according to the law in effect in the territory, which presumably would usually be the common law unless it had been abrogated or modified in this regard by territorial laws. Under the usual common-law rule, grantees of lands adjoining non-navigable streams acquired ownership of the bed, and this bed ownership cannot be abrogated by state legislation or court decisions after statehood.[21] On the other hand, the former cases suggest that if a state court has adopted a rule that grantees of lands adjoining a *navigable* watercourse ordinarily acquire title to its bed, this may be

but the *Champlin* case discussed above stressed that a state court cannot declare a stream non-navigable by federal criteria to be navigable and thereby bring into operation a different rule that would prevent a riparian grantee before statehood from acquiring bed ownership.

The *Brewer* case, *supra,* similarily involved a grant before statehood in Oklahoma and the Court said substantially the same thing, although its statements in this regard appear to have been largely incidental as it had concluded that the federal grant involved had *expressly* included the portion of the streambed in dispute. It likewise said that the state court's opinion that the stream was navigable was not binding on the federal courts and the same view was expressed in the *Champlin* case discussed above, noting that neither the federal government nor its grantees had been represented in the state case.

The Court at one point said "It is not for a State by courts or legislature, in dealing with the general subject of beds of streams, to adopt a retroactive rule for determining navigability which would destroy a title already accrued under federal law and grant or would enlarge what actually passed to the State, at the time of her admission. . . ." But it also said that Wear v. Kansas, 245 U.S. 154 (1917), had involved a federal grant made before statehood "without restriction, reservation or expansion" and added that "the United States by its unrestricted patent was properly taken to have assented to its construction according to the local law. Whether the local law worked its purpose by conclusively determining the navigability of the stream, without regard to the fact, or by expressly denying a riparian title to the bed of a non-navigable stream, was immaterial. In either view the result would have been the same." This appears to be contrary to the view expressed in the *Champlin Refining Co.* case, discussed above. But it seems to be an erroneous statement as the *Kansas* case does not appear to provide good support for it. It does not appear that the *Kansas* case directly dealt with the issues as stated in the *Brewer* case. Anyway, in the *Kansas* case the Court appears to have acquiesced in the state court's determination (without taking evidence) that the stream was navigable in view of a prior federal case and applicable federal legislation and prior state cases which it said tended to support such a determination. Moreover, if the court there had treated it as non-navigable (by federal criteria) and had still allowed the state court to rule that the riparian grantee did *not* get ownership of the bed, it seems that the federal government would have retained title to it and it is unclear how the state would have acquired title so as to assert rights in the sand in the bed, which appears to have been a question in issue. Such questions with respect to meandered non-navigable lakes in Illinois are considered later.

[21] This is not particularly significant regarding streams in Illinois because the Illinois court has employed criteria of navigability that are generally comparable to federal criteria, as noted earlier, and furthermore has generally applied the common law regarding ownership of streambeds. It is significant, however, with respect to meandered non-navigable lakes in Illinois, discussed later.

applied retroactively so as to relinquish the title the state acquired on statehood to the grantees of adjoining lands before statehood.

It appears that the construction and effect of conveyances of riparian lands or beds occurring after such lands or beds left federal ownership is generally governed by state law — subject, however, to continuing effects of the early federal patents or grants as beginning links in the chain of title.

The Illinois Supreme Court has adopted a rule that federal or other grants of lands adjoining navigable lakes do not convey title to their beds. It has thereby retained in the state the title it acquired on statehood to the beds of lakes that were navigable by federal tests. It also has adopted a rule that federal grants to lands adjoining meandered lakes did not convey title to their beds even though they may not have been navigable in fact.[22]

But the application of the Illinois court's rule to meandered although non-navigable lakes raises a perplexing question. In one case, it indicated that it had adopted its rule that grants of lands adjoining meandered lakes did not convey title to their beds:

> upon the ground that the Federal government, by its act in meandering a lake, indicates that it is a navigable body of water, concedes that the title to the bed of the same is in the State, and by selling or otherwise disposing of the surrounding lands as bounded by the edge of the water, abandons all claim to the bed.[23]

But this notion does not appear to be supported by federal court decisions and some other Illinois court decisions also have tended to take a contrary view regarding the intended effect of meander lines, as noted earlier.[24]

In *Hardin v. Jordan,* which involved a meandered Illinois lake in Cook County, the United States Supreme Court said that the lake was not navigable notwithstanding its indication that the lake had been meandered. The Court, among other things, noted that:

> It has been the practice of the government from its origin, in disposing of the public lands, to measure the price to be paid for them by the quantity of upland granted, no charge being made for the lands under the bed of the stream, or other body of water. The meander lines run along or near the margin of such waters are run for the purpose of ascertaining the exact quantity of the upland to be charged for, and not for the purpose of limiting the title of the grantee to such meander lines.[25]

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[22] See Lakes and Ponds, p. 77.

[23] Wilton v. Van Hessen, 249 Ill. 182, 189, quoted *supra.* But the Illinois court has not applied this rule to *nonexistent* meandered lakes. See Lakes and Ponds, *supra.*

[24] See the quotations from People v. Hatch, *supra,* and from Whitaker v. McBride, discussed under Ownership of Beds of Navigable Streams, *supra.*

[25] 140 U.S. 371, 379-380 (1891). In Oklahoma v. Texas, 258 U.S. 574, 585 (1922) the Court said that the fact that a stream had been meandered was of "little significance" as the surveyors "were not clothed with power to settle questions of navigability." In United States v. Oregon, discussed above, which also involved a meandered lake held to be non-navigable in fact, the Court proceeded to determine its navigability without any reference to any possible effect of meander lines in making such determinations by a court. See also Gauthier v. Morrison, 232 U.S. 452 (1913) quoted in People v. Hatch, 350 Ill. 588, 591 as noted earlier.

The Court indicated that Illinois law should be followed in construing the patent's effect where it contained no reservations or restrictive terms.[26] In this 1890 decision, it interpreted Illinois law as providing that the patent should be construed to convey title to the bed. Nevertheless, the Illinois court has later held to the contrary view that as a general rule federal grants of lands adjoining a meandered non-navigable lake should be interpreted as not conveying title to its bed. Thereafter, in another case (*Hardin v. Shedd*) involving the same lake as in *Hardin v. Jordan,* the United States Supreme Court applied the rule later adopted by the Illinois court and held that a grantee of adjoining land did not get title to the bed.[27] Two dissenting Justices in this case expressed the fear that the effect of the Court's decision would be to approve the alleged decision of the Illinois court that a conveyance by the United States to private persons of lands adjoining a meandered non-navigable lake would transfer title to its bed to the State of Illinois.[28] But in the later case of *United States v. Oregon,* discussed earlier, the Court said:

. . . in no case has this Court held that a state could deprive the United States of its title to and under non-navigable waters without its consent, or that a grant of uplands to private individuals, which does not in terms or by implication include the adjacent land under water, nevertheless operates to pass it to the State. Whether, on any theory, such a result could be upheld was a question expressly reserved in *Hardin v. Shedd,* 190 U.S. 508, 519; *Whitaker v. McBride,* 197 U.S. 510, 515; *Marshall Dental Co. v. Iowa,* 226 U.S. 460, 462. . . .[29]

[26] It added, at 384, that "The United States have not . . . explained what interpretation or limitation should be given to, or imposed upon the terms of the ordinary conveyances which they use, except in a few special instances . . . ," quoting from an earlier case.

[27] 190 U.S. 508 (1902); 23 A.L.R. 789. In this case it felt that the Illinois rule should apply, not only for the reason that the lake had been meandered, in accord with the later Illinois decision, but because it now felt that in Hardin v. Jordan it could have decided that, since the federal patent referred to and adopted an official plat describing the lake as a "navigable lake," the patent might be construed as purporting to bound the land conveyed by navigable water and hence not to have intended to convey bed ownership, even though the lake was actually non-navigable. It was noted in Hardin v. Jordan, at 140 U.S. 380, that the patent recited that it was made in accordance with the plat and thereby adopted it as a part of the instrument of conveyance.

Subsequent to this litigation, the Circuit Court of Cook County decreed in 1919 that the state owned the bed of the lake according to boundaries as established in the decree. The Illinois Department of Public Works and Buildings has since purchased a strip of adjoining land to preclude the possibility of encroachments that might allow riparian owners to ask for lands within the decree line and it has transferred its jurisdiction regarding the lake to the Department of Conservation which has developed the area for conservation and recreation. Based on MEANDERED LAKES IN ILLINOIS, Ill. Dept. of Public Works and Bldgs., Div. of Waterways (1962), pp. 50-52.

[28] Relevant language of the Illinois court in this case, after holding that a federal patent to land adjoining the meandered non-navigable lake did not thereby convey title to its bed, was as follows: "By such holding, so long as such meandered lakes exist, over their waters, and bed when covered with water, the State exercises control, and holds the same in trust for all the people, who alike have benefit thereof in fishing, boating, and the like." 161 Ill. 462, 493.

[29] 295 U.S. 1, 27 (1934). In referring to Hardin v. Shedd, the Court apparently

In this case the Court held that the disputed areas of meandered lakes, on which the federal government was operating a bird reservation, were non-navigable. A principal question in issue involved an Oregon statute enacted in 1921 which declared all its meandered lakes to be navigable public waters of the state and title to the beds thereof to be in the state (if not previously granted by the state). In this regard, the United States Supreme Court said:

. . . the State in making its present contention, does not claim as a grantee designated or named in any grant of the United States. It points to no rule ever recognized or declared by the courts of the State that a grant to individual upland proprietors impliedly grants to the State the adjacent land under water. The only support for its claim is the statute of 1921, adopted subsequent to every grant of the United States involved in the present case. The case is not one of the reasonable construction of grants of the United States, but the attempted forfeiture to the State by legislative fiat of lands which, so far as they have not passed to the individual upland proprietors, remain the property of the United States. Such action by the State can no more affect the title of the United States than can the similar legislative pronouncements that streams within a State are navigable which this Court has found to be non-navigable.[30]

Note the Court's reference in this quotation to the lack of any rule adopted by the Oregon courts that grants to riparian proprietors impliedly grant to the state the adjacent land under water. It may be questioned whether it would have allowed such a rule, if there had been one in Oregon, to be applied to federal grants of riparian lands to private individuals so as to impliedly convey federally-owned beds within the meander lines of a non-navigable meandered lake to state ownership where the state was not designated or named as a grantee in the grant.[31]

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had reference primarily to the following statement in the majority opinion, at 519: "The rule as to conveyances bounded on non-navigable lakes does not mean that the land under such water also passed to the State on its admission or otherwise, apart from the Swamp Land Act, but is simply a convenient, possibly the most convenient, way of determining the effect of a grant. We are particular in calling attention to this difference, because we fear that there has been some misapprehension with regard to the point."

[30] 295 U.S. 1, 28-29. The Court's subsequent decree appears at 295 U.S. 701 (1935).

[31] See Bade, *Title, Points and Lines in Lakes and Streams,* 24 MINN. L. REV. 305, 323 (1939) for the viewpoint that this cannot be accomplished either by a state statute or rule of law. It would seem especially difficult as to federal grants occurring before statehood or otherwise before the state courts had adopted any such rule. A retroactive pronouncement by a state court that a rule adopted by it had always been applicable (at least since statehood) even though it had not previously said so, seems more likely to be upheld than similar retroactive legislation. By such retroactive pronouncements, state courts apparently may relinquish the state's ownership of bed title under navigable waters to the riparian landowners holding under federal grants before statehood, as noted earlier. But this is different from thereby attempting to assert state ownership where the state was never designated or named as a grantee in any federal grant. Recall the discussion of United States v. Champlin Refining Co., *supra,* indicating that the grantee of lands adjoining a non-navigable stream acquired bed ownership under the common-law rule said to be in effect in the Oklahoma Territory and that this title could not be abrogated by a later opinion by the state court that the stream was navigable.

In an earlier case in 1909, the Iowa Supreme Court concluded that the grantees of adjoining lands had not acquired title to the bed of a meandered non-navigable lake in Iowa.[32] After reviewing previous United States Supreme Court decisions bearing on the question,[33] the court said, among other things, that:

There seems no ground for saying that the state acquired title to the non-navigable lakes upon admission of the state to the Union . . . the waters and the soil beneath have been withheld from private appropriation by the government for the benefit of all the people . . . the government, in reserving the numerous small lakes of the state from sale, intended them for the public use. No attention has been bestowed thereon since by the government, and in all respects, save in the regulation of commerce, non-navigable lakes like those which are navigable, have been treated as under the control and sovereignty of the state. . . .

We are not now concerned with the inquiry as to whether the state may dispose of these lake beds in a manner inimicable to the purposes of their reservation by the general government. It is enough to dispose of the case at bar to decide, as we do, that the state has such an interest in Goose Lake as will support an action to restrain defendants, who are without title, from draining the waters therefrom, or otherwise exercising proprietary control over the same.[34]

On appeal to the United States Supreme Court, that Court, in affirming the Iowa court's decision, said, among other things, that:

By the law of Iowa the riparian owners took title only to the water's edge, and therefore the grants of the adjoining land by the United States did not convey the land under the lake. . . . It follows that the bed of the lake either still belongs to the United States or must be held to have passed to the State.

The question as to the title to the bed is treated as open in *Hardin v. Shedd,* 190 U. S. 508, 509, and *Whitaker v. McBride,* 197 U. S. 510, 515, and there is no need to decide it now. It is enough to say that by virtue of its sovereignty the State of Iowa has an interest in the condition of the lake sufficient to entitle it to maintain this suit against an intruder without title, whether the State owns the bed or not. . . .[35]

In a later case, in 1950, the Iowa Supreme Court noted that, while in some of its previous decisions it had unnecessarily said that the title to the beds of meandered non-navigable lakes is in the state, in its 1909 opinion quoted above it had said that title to such lake beds

. . . has been retained by the United States, and the waters of these lakes and the soil beneath have been withheld from private appropriation for the benefit of all the people, and reserved through the medium of the State as trustee in trust for all the people, and are treated as under the control and sovereignty of the State . . .

[32] State v. Jones 143 Iowa 398, 402.

[33] Citing Kean v. Calumet Canal Co. and Hardin v. Shedd, discussed *supra.*

[34] 143 Iowa, pp. 405-409. It also may be noted that Iowa Code Ann. (1950) § 716.5 provides that it is a misdemeanor to drain a meandered lake unless authorized by law. See 41 Iowa L. Rev. 229.

[35] Marshall Dental Mfg. Co. v. Iowa, 226 U.S. 460 (1913), cited in United States v. Oregon, 295 U.S. 1, 27, as noted in the previous quotation from that case.

It added that:

The state may take such action as may seem necessary to protect and preserve such a lake, and while it is not necessary to pass upon the question, and we do not, it is pertinent inquiry whether the state could ever quiet title to such a lake.[36]

In a 1914 case the Iowa court had said that the reason for the rule that the lake bed

. . . remains in the general government, reserved in trust for all the people of the state . . . is given as being to preserve to the people the free right of boating, fishing, and the like, and not for any use or benefit which might be had of the lake bed when free from water.[37]

Neither of the cases was appealed to the United States Supreme Court. It is problematical whether that Court would agree with the views expressed by the Iowa court. Recall in this connection that in *United States v. Oregon,* discussed earlier, a federal bird reservation was established on such a lake.[37a]

It would appear from the foregoing cases that the federal courts, unless a contrary intention was manifested in a federal patent or grant, ordinarily may construe such patents or grants issued after statehood to lands bordering on meandered Illinois lakes that are not navigable (by federal criteria) in conformity with the general rule followed by Illinois courts that the grantee did *not* thereby acquire title to the bed of such a lake.[38] But it would seem that federal courts also might hold that the ownership of the beds of such lakes is in the federal government, not the State of Illinois, on the ground that it retained title to land not conveyed — except, of course, to the extent the federal government may have expressly or otherwise conveyed title to such beds.[38a] The state, while acquiring title

[36] State v. Nichols, 241 Iowa 952, 967-968.

[37] State v. Livingston, 164 Iowa 31, 37.

[37a] This had been done in 1908 following the survey and meandering of such lakes in 1895-1896 which had been approved by the Commissioner of the Land Office in 1897. United States v. Oregon, *supra,* 295 U.S. 1, 5-6 (1935).

[38] The cases so indicating (Hardin v. Jordan and Hardin v. Shedd, *supra*) involved grants *after* statehood. A contrary result might be reached as to grants *before* statehood. See United States v. Champlin Refining Co., *supra.* This case, like the other cases dealing with grants of lands along non-navigable waters before statehood discussed earlier (Oklahoma v. Texas and Brewer-Elliott Oil Co. v. United States, *supra*) involved non-navigable *streams.* In Hardin v. Jordan, *supra,* the Court held that, under the common-law rule, riparian grantees likewise obtained title to the beds of non-navigable lakes. 140 U.S. 371, 388-392. See also Kean v. Calumet Canal Co., *supra,* 190 U.S. 452, 459.

[38a] If ownership of the bed of a non-navigable meandered lake is in the federal government, one effect may be to require its permission to erect a dam or other structure on the bed of such lake, even though the lake may not be considered navigable water of the United States. In a letter opinion dated March 26, 1954, the Illinois Attorney General advised the Director of the Department of Public Works and Buildings that a meandered lake would be regarded as navigable water of the United States and its consent would be required to build a dam, not on the grounds that it owned the bed but under federal statutes empowering it to regulate interstate commerce (see Federal Matters, p. 230). But if a lake were in fact non-navigable by

to the beds of navigable waters upon statehood, did not acquire title to beds of non-navigable waters.[39]

The Illinois courts have adopted a general rule that federal grants of lands adjoining rivers and streams, unlike lakes, conveyed title to their beds — even though they were navigable or meandered. In any instances where possible exceptions to this general rule apply,[40] it appears that the bed title ordinarily would have remained in the state if the stream were navigable by federal criteria[41] or in the federal government if it were not navigable.

It should be borne in mind, however, that the foregoing discussion has dealt with general rules of law uncomplicated by such factors as the various swamp, canal, or school land grants or other special grants that have been made in Illinois to the state or to others by the federal government.[42]

In 1850 the Congress passed an act relating to "swamp and overflowed lands, made unfit thereby for cultivation." The Act granted such swamp and overflowed lands as had not yet been sold by the federal government to the states and directed the Secretary of the Interior to prepare an accurate list and plats of such lands, transmit this to the Governors, and at their request cause patents to such lands to be issued to the states. The Act provided that such list and plats should include all legal subdivisions the greater part of which were wet and unfit for cultivation, but should exclude the whole of subdivisions not of that character.[43] More than 1

applicable federal criteria and had no connection with navigable waters, it appears that federal jurisdiction generally would derive from federal ownership of the bed rather than its power to regulate interstate commerce. In this event, its jurisdiction would be based on its proprietory powers. See Federal Matters, p. 230, for a discussion of the various federal powers.

In United States v. Oregon, *supra,* the federal government was operating a bird reservation in the disputed area that the Court held the state did not own.

[39] A similar result might be reached regarding any *non*-meandered lakes that may be non-navigable by federal tests of navigability but might be considered by Illinois courts to be navigable. It seems unlikely, however, that there are any such lakes, for the navigability tests that have been used by Illinois courts appear to be as restrictive as (and possibly more restrictive than) the federal tests for bed-title purposes. See Navigable Waters, p. 60.

[40] See the discussion regarding the possible exception where monuments were erected on meander lines, under Ownership of Beds of Navigable Streams, p. 67.

[41] Or in the federal government for the benefit of the state if the grant occurred before statehood, title passing to the state upon statehood.

[42] See note 68, p. 74, for some references to such grants in Illinois. See also PATTON, TITLES (2d. ed. 1957) § 307, n. 21; M. ORFIELD, FEDERAL LAND GRANTS TO THE STATES WITH SPECIAL REFERENCE TO MINNESOTA, U. Minn. Social Studies, Bul. No. 2, March 1915 (see index regarding Illinois).

[43] 9 STAT. 519. See also 43 U.S.C.A. § 981 *et seq.* By an act of 1857 the Congress confirmed to the states all such lands selected by them and remaining vacant and unappropriated. 11 STAT. 251.

"Legal subdivision" apparently generally meant sixteenth-sectional (ordinary 40-acre) tracts. See Buena Vista County v. Railroad Co., 112 U.S. 165 (1884); Wilkinson v. Watts, 309 Ill. 607, 611 (1923); instructions of the General Land Office, Nov. 21, 1850, appearing in W. LESTER, Decisions of the Interior Department in Public Land Cases and Land Laws passed by Congress, with Regulations of the General Land Office (1860) at p. 544.

million acres of land reportedly were granted to the State of Illinois under the Swamp Land Act.[44]

Swamp-land grants appear to be of significance in Illinois regarding the question of title to beds of meandered non-navigable lakes. In a case involving the meandered non-navigable lake in Cook County discussed earlier, the Illinois court said that its bed had not been conveyed under the Swamp Land Act because the Secretary of Interior had expressly determined that the lands involved were not swamp lands.[45] On appeal to the United States Supreme Court from a connected case, that Court found it unnecessary to decide the question.[46] But in a case involving the Indiana side of the same lake the United States Supreme Court said that a swamp-land grant of the whole of designated fractional sections "it not appearing otherwise . . . must be presumed to have included the lands overflowed" and to have thereby conveyed title to the bed of the lake particularly where, as here, the lake was entirely surrounded by lands that had been surveyed and included in the swamp-land grants.[47] The Court did not discuss any reasons for such presumption nor did it at this point consider any possible effect that state law might have. But earlier in its opinion it said it would have reached the same result in this case by applying the Indiana rule that federal grants of land adjoining non-navigable meandered lakes conveyed ownership of the bed. It is not clear to what extent this may have affected its decision regarding the effect of swamp-land grants.[48]

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[44] PATTON, TITLES, *supra*, § 307, n. 21. ORFIELD, *op. cit. supra*, at p. 118.

By June 30, 1880, the State of Illinois had made claims for more than 3 million acres of land under this swamp-land legislation and nearly 1½ million acres had been patented thereunder, according to T. DONALDSON, THE PUBLIC DOMAIN; ITS HISTORY, WITH STATISTICS (1884) at 222.

[45] Fuller v. Shedd, 161 Ill. 462, 491-492 (1896).

It also may be noted that even though certain lands were swamp lands subject to the Act of 1850, some of such lands did not pass to the state because of an act passed in 1855. It provided that where various purchasers, homesteaders, etc. had made entries of such public lands claimed as swamp lands, patents should be issued to them (although if the state had previously sold or disposed of such lands as swamp lands this could not occur unless the state released its claim thereto). The purchase money from such lands was to be turned over to the state or it could select other public lands in lieu thereof under certain procedures. 10 STAT. 634, 43 U.S.C. §§ 981 and 985. Lands in the bed of a non-navigable and non-meandered lake in Illinois were said in one case to have been erroneously sold by the federal government to an individual but, since the purchase money was turned over to the state under this legislation, the lands did not pass to the state as swamp lands. Leonard v. Pearce, 348 Ill. 518, 521-22 (1932). See also People v. Pearce, 354 Ill. 580, 582 (1934).

[46] Kean v. Calumet Canal Co., 190 U.S. 452, 460 (1902).

In an earlier case also arising from Indiana, a lower federal court appears to have taken the position that the Swamp Land Act manifested the federal government's intention to convey the bed of a meandered non-navigable lake along with the surrounding lands that were conveyed under it. State of Indiana v. Milk, 11 Fed. 389, 392-394 (1882).

[47] 190 U.S. 508, *supra*, on appeal from 177 Ill. 123 (1898).

[48] The court said that "The case is stronger if the land passed under the Swamp Land Act, as has been held by the State court" and added "See Mitchell v. Smale, 140 U.S. 406, 414." The opinion in the latter case stated that, after the Swamp Land Act was enacted, federal officials could no longer expressly limit grants of riparian

But dissenting justices in the case said that "it is pressed that what title . . . passed . . . either under the Swamp Land Act or in virtue of the patents issued to the State, is to be determined . . . solely by the state or local law;" with which they disagreed.[49] If the Court had followed the usual Illinois rule regarding meandered non-navigable lakes it may have concluded that swamp-land grants ordinarily did *not* convey title to their beds.[50]

In a case decided in 1917 the United States Supreme Court, in construing the effect of a swamp-land grant in Arkansas, stated that:

> Where in a survey of the public domain a body of water or lake is found to exist and is meandered, the result of such meander is to exclude the area from the survey and to cause it as thus separated to become subject to the riparian rights of the respective owners abutting on the meander line in accordance with the laws of the several States. *Hardin v. Jordan,* 140 U.S. 371; *Kean v. Calumet Canal Co.,* 190 U.S. 452, 459; *Hardin v. Shedd,* 190 U.S. 508, 519.[51]

The three cases the Court cited all involved the question of whether a federal land grant conveyed ownership of the bed of a meandered non-navigable lake along with ownership of the adjoining land, and the *Kean* case, as noted earlier, involved a swamp-land grant.[52] Hence this may lend further support for the fear expressed by a dissenting Justice, as already noted, that the Court may have decided that the question of whether a swamp-land grant conveyed the bed of such a lake along with the adjoining land ordinarily will be determined in accordance with the law of the state.

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lands along non-navigable lakes or streams to the water's edge and thereby reserve the right to later survey and grant the bed to others. That case, however, did not involve any swamp-land grant.

[49] 190 U.S. at 474.

[50] In Fuller v. Shedd, 161 Ill. 462 (1896) involving a meandered non-navigable lake, as discussed earlier, the Court applied its rule that grants of adjoining lands do not convey title to the bed in a case where a number of the conveyances were of fractional sections adjoining and encompassing portions of the lake (as might often be the case with swamp-land grants). In a later case, Kinsella v. Stephenson, 265 Ill. 369, 381 (1914) the Court said that in Fuller v. Shedd it had "held that the section lines could not be passed when a lake was so large that the extension of those lines would not absorb it." This perhaps implies that title to the bed of a small lake entirely surrounded by land included in one conveyance might be conveyed with the adjoining land. But the *Fuller* case, at 489, expressly says that the size of a meandered lake is immaterial. For the view that the *Fuller* case was mistakenly cited as authority for the quoted statement see 11 Ill. L. Rev. 540, 551 (1917). At p. 562, the authors criticize the quoted statement.

If a fractional section designated as swamp land lies entirely within a meandered non-navigable lake this might transfer title to the state under the Swamp Lands Act. But it seems unlikely that such sections ordinarily would have been so designated if the lake were meandered.

[51] Lee Wilson and Co. v. United States, 245 U.S. 24, 29 (1917).

[52] In another connected case, the Court said that a meandered lake was the boundary of a federal patent to an individual of adjoining land and that "all the legal consequences of such a boundary, in the matter of riparian rights *and title to land under water,* regularly follow." Mitchell v. Smale, *supra,* 140 U.S. 406, 413. (Emphasis added.) This was quoted approvingly in United States v. Lane, 260 U.S. 662, 666 (1923).

The Court also stated a second proposition or rule of law as an exception to the above rule which it relied upon in deciding the case. It said:

But where upon the assumption of the existence of a body of water or lake a meander line is through fraud or error mistakenly run because there is no such body of water, riparian rights do not attach because in the nature of things the condition upon which they depend does not exist and upon the discovery of the mistake it is within the power of the Land Department of the United States to deal with the area which was excluded from the survey, to cause it to be surveyed and to lawfully dispose of it.[53]

The Court applied this exception to its general rule to the swamp-land grant in question and held that such a grant of a township in Arkansas did not include the lands within the meander lines that had been mistakenly run around a nonexistent body of water within it.[54] In the *Kean* case, the

[53] The Illinois court has taken a similar view concerning the effect of meander lines around nonexistent lakes, as noted under Lakes and Ponds, p. 77.

[54] The Court relied heavily upon a prior case, also arising from Arkansas, which dealt with a similar situation and in which the Court had reached similar results, even though there, unlike the later case (see 245 U.S. at 28), the federal government had not yet expressly surveyed the lands within the meander lines. The Court held that the federal government still owned the lands. In that case, the Court expressly stated that the question of what lands were conveyed under a swamp-land grant is a question of federal, not local law. It determined that the federal government did not intend to convey the lands within the meander lines. Chapman and Dewey Lumber Co. v. St. Francis Levee Dist., 232 U.S. 186, 196-198 (1914), *rehearing denied* 234 U.S. 667 (1914). But in the later *Arkansas* case, it apparently modified this by saying, as noted earlier, that the general rule is that meander lines have the effect of excluding the lands therein from the survey and cause such lands "to become subject to the riparian rights of the respective owners abutting on the meander line in accordance with the laws of the several States." Apparently because both cases were decided by applying the above-mentioned exception to this rule, the Court in both cases dealt solely with federal rules of construction and in the earlier case it revised the Arkansas court's decision. It distinguished the case at hand from the *Kean* case, *supra,* by saying at 232 U.S. 459, "It will be perceived that we are not speaking of land which was covered by a permanent body of water at the time of the survey and thereafter was laid bare by a subsidence of the water, nor yet of comparatively small areas which sometimes lie within meander lines reasonably approximating the shores of permanent bodies of water. See Horne v. Smith, 159 U.S. 40; Kean v. Calumet Canal Co., 190 U.S. 452; Hardin v. Shedd, 190 U.S. 508. . . ."

[In a previous case which appears to have involved a similar situation in Arkansas (which, however, the Court did not mention in its later decisions in 245 U.S. 24 and 232 U.S. 186, *supra*) the Arkansas Supreme Court had decided (contrary to its erroneous decision that was reversed in 232 U.S. 186 and in accord with the United States Supreme Court decision therein) that, where a meander line encompassed dry lands instead of a lake, it constituted the boundary of the swamp-land grant so that it did not convey the lands within it. The United States Supreme Court affirmed that decision, stating that "the jurisdiction of this Court to revise the conclusions of that Court cannot be maintained" in view of its decisions in the *Kean* case, *supra* (which, however, had reached an opposite end result) and other cited cases. Chapman and Dewey Land Co. v. Bigelow, 206 U.S. 41 (1907). One of the other cited cases also involved a swampland grant. There the Court said it had no jurisdiction to review the state court's decision regarding the particular issues on appeal. But it did say it could review questions of the construction of federal laws and rights acquired under them and noted that it perhaps could review questions regarding the Swamp Land Act at the request of persons claiming title thereunder. Iowa v. Rood, 187 U.S. 87 (1902).]

meander line had been run around a non-navigable lake which had been receding, but it apparently was not regarded as having been incorrectly run and within the above exception to the rule, because there was a body of water within it when it was meandered, and apparently also at the time of the swamp-land grant. At any rate, the swamp-land grant of the sections in which it lay was held to convey ownership of the land within it and to invalidate the government's later survey and sales of the surveyed tracts therein to others.

In the case arising from Arkansas, the Court said that the exception to the general rule, as quoted above, would apply "unless it be that for some reason" it is inapplicable. It then reviewed the wording and nature of the patent, the plat and survey to which it referred, and the swamp-land selection and applicable legislation upon which it was based, "all of which must be considered in determining the grant made to the State. . . ."[55] It concluded that these factors collectively indicated the federal government's intent that the grant did not include the land within the meander lines (which was in accord with the exception to the general rule as described above). But the status of these factors in this case does not appear to have been substantially different from the earlier *Kean* case, *supra,* where the Court reached an opposite result (although in accord with the general rule expressed but held inapplicable in the later *Arkansas* case). Moreover, both cases involved lakes of approximately the same size. Hence, it appears that the primary distinction between the cases is that in the *Arkansas* case a *nonexistent* lake had been meandered and for this reason the case came within the exception to the general rule.[56] The *Arkansas* case indicates that all of the relevant factors are to be considered in endeavoring to determine the intention of the federal government. But the foregoing cases, *taken together,* appear to indicate that the Court has felt that the federal government has not manifested an intention that its

[55] 245 U.S. 24, *supra,* at p. 30. The Court did likewise in the earlier *Arkansas* case. 232 U.S. 186, *supra.*

[56] The *Kean* case, *supra,* at one point indicated that the question of the extent to which the lands within the meander line had been surveyed may be significant. But the method of survey involved in that case does not appear to have been significantly different from that in the later cases arising from Arkansas, *supra.* At any rate, the Court said, at 190 U.S. 460, that "No difficulty was felt on the ground that the survey did not cover the submerged land in Hardin v. Jordan," discussed *supra,* and added that "The land surrounding the water, at least, was surveyed, so that the identification of the submerged portion was absolute."

The apparent distinction between the cases as described above seems to be further substantiated by the language of a later decision of the United States Supreme Court, where the Court indicated that the usual rule regarding the effect of meander lines would not be applied where no body of water existed and there was no attempt to survey the lands within such lines. The Court cited both of the cases arising from Arkansas (245 U.S. 24 and 232 U.S. 186, *supra*) and others as support for this proposition. Jeems Bayou Fishing and Hunting Club v. United States, 260 U.S. 561, 564 (1923). See also the discussion of this and the later of the cases arising from Arkansas in United States v. Otley, 127 F. 2d. 988, 995-996 (1942) and see the discussion in Gauthier v. Morrison, 232 U.S. 452, 459 (1914), French-Glenn Livestock Co. v. Springer, 185 U.S. 47 (1902), and 23 A.L.R. 789.

swampland grants should be construed any differently from its ordinary federal patents on the question of whether lands within meander lines were conveyed along with the adjoining lands.

It thus appears that the language of the Court in *United States v. Oregon,* quoted earlier, is applicable to swamp-land grants as well as ordinary federal patents. That is, federal laws control the disposition of federal grants,[57] but if the federal government's "intention be not otherwise shown it will be taken to have assented that its conveyance should be construed and given effect in this particular according to the law of the state in which the land lies."[58] It seems that, in the case of a meandered non-navigable lake, the question of whether a swamp-land grant of adjoining lands conveyed title to its bed ordinarily will be decided according to the applicable state rule (although if the lake was nonexistent when meandered the federal government could correct the mistake and later survey and convey the lands within the meander lines to others).[59] From the cases reviewed above, and from a review of various instructions of the Land Department and the applicable legislation, it does not appear that a clear and definite intention in this regard on the part of the federal government has been manifested.[60] A detailed review of the designations of and decisions regarding swamp lands made by the Secretary of Interior and patents issued would help to ascertain whether the ownership of the beds of certain meandered non-navigable lakes may have been included. Even if legal subdivisions designated as swamp lands embraced all or parts of the beds of such lakes, this would not have conveyed title thereto to the state if the usual Illinois rule regarding grants along such lakes were applied. If a designated tract lay entirely within such a lake, it may have conveyed title to that part to the state. But it seems unlikely that the beds

[57] It cited one of the cases arising from Arkansas which involved a swamp-land grant (232 U.S. 186) as support.

[58] 295 U.S. 1, 27-28 (1934), *supra.* While this case did not involve swamp-land grants, it cited the *Kean* case, *supra,* which did, in support of this proposition. The Court, however, could have been referring to the *Kean* case's reference to the usual Indiana rule regarding grants of lands adjoining meandered non-navigable lakes rather than its specific references to the Swamp Land Act. See also Oklahoma v. Texas, 258 U.S. 574, 594-95 (1922).

[59] It appears that this latter proposition is a settled general rule as a matter of federal law and that a contrary state rule, if any, would not be permitted to upset it. The Court has indicated that exceptions to it may arise by reason of applicable federal legislation, and instructions, actions, etc. thereunder. But it concluded, as noted earlier, that such factors regarding the Swamp Land Act in the cases described above manifested a federal intention in accord with the general rule.

[60] For various instructions of the Land Department, see LESTER, *op. cit.,* Decisions of the Interior Dept., etc. at 542, *et seq.*

It would appear from these various sources that fairly plausible arguments can be advanced for two or more conflicting notions of what the federal government intended. Compare the views in this regard expressed in the *Kean* case, *supra,* 190 U.S. 452 (and in the earlier opinion of a lower federal court in State of Indiana v. Milk, *supra,* 11 Fed. 389) with the views in this regard expressed in the later cases arising from Arkansas (232 U.S. 186 and 245 U.S. 24).

of such lakes ordinarily were so designated, especially where adjoining lands had been conveyed before the Swamp Land Act to private individuals or others.[61]

According to a recent publication of the Division of Waterways, Illinois Department of Public Works and Buildings, none of the beds of the approved-meandered[62] lakes in Illinois within their meander lines was expressly conveyed to the state or anyone else via swamp-land grants or otherwise, — with three exceptions. The bed of one lake which was partially meandered in the originally approved survey was entirely subdivided in a later survey approved in 1845, and most of the area within the original meander lines was conveyed under the Swamp Land Act of 1850. Similarly, the earlier partially meandered status of another lake was removed by a resurvey approved in 1852, and most of the area within the former meander lines was conveyed as swamp land. In the third instance, the bed had been entirely meandered in the originally approved plats and surveys, but a part was left unmeandered in a resurvey approved in 1852 and this part of the bed was conveyed to the state as swamp land.[63]

It should further be noted that in a 1932 case the Illinois court decided that land within the meander line drawn around a *nonexistent* lake did *not* pass to the state upon statehood (a recognized exception to its general rule regarding the effect of meander lines).[64] But it decided that although such land may not have been designated by the federal or state governments as swamp land, the state nevertheless acquired title thereto under the 1850 Swamp Land Act (the lands not previously having been patented).[65] It quoted a United States Supreme Court case as saying that while

[61] In Fuller v. Shedd, *supra,* 161 Ill. at 491, the Court noted that the Secretary of Interior had rejected a claim that certain Illinois lands within the meander lines of a non-navigable lake were conveyed by the Act, perhaps for this reason. The United States Supreme Court on appeal from a connected case (177 Ill. 123) said that adjoining lands were patented before the Swamp Land Act. 190 U.S. 508, 518. (See also 11 Ill. L. Rev. at 560.) That Court also noted, at 520, that certain of the lands in dispute were acquired by a riparian owner as accretions to his land due to the recession of the lake within the meander lines to a smaller size.

See also People v. Hatch, 350 Ill. 586, 592-3 (1932), discussed below, in which the Court said that the bed of a meandered but nonexistent lake had not been designated by either the Secretary of the Interior or the State of Illinois as swamp land although it actually was such land as defined in the Swamp Land Act.

[62] The beds were conveyed as swamp lands or otherwise in some instances where the original meandering of a lake by a surveyor was not approved by his superiors and the lake was not meandered in the approved plats and surveys, as discussed earlier. See Meandered Lakes in Illinois, cited in note 2, p. 77.

This publication was based primarily upon public land records in the Illinois State Archives and relevant opinions of the appellate courts and Attorneys General of Illinois. But it does not purport to be a conclusive determination of the status of meandered lakes in Illinois. (Letter from T. B. Casey, Chief Waterway Engineer, Div. of Waterways, Ill. Dept. of Public Works and Bldgs., dated March 25, 1963.)

[63] See Meandered Lakes in Illinois, cited *supra,* regarding Impassable Lake, Cat Tail Swamp, and Dyson's Lake, respectively. All three lakes have since been drained so that the former lakes no longer exist except for a small part of Impassable Lake.

[64] See Lakes and Ponds, p. 77.

[65] People v. Hatch, *supra,* 350 Ill. 586, 592.

designations of certain lands as swamp lands by the Secretary of Interior are ordinarily conclusive and may not be collaterally attacked,[66] if he failed to so identify lands meeting the description of swamp and overflowed lands in the Act, the lands may be so designated through other appropriate methods. The federal case did not, however, involve the question of whether lands not included on the list of swamp lands prepared by the Secretary of the Interior and not so designated by the state could years later be held to have been granted under the Swamp Land Act merely by proof of their being swamp lands, as was contended by the Illinois court.[67]

[66] Except for possibilities of direct appeal for fraud or mistake. Other possible exceptions are cited in Dupue Rod and Gun Club v. Marliere, 332 Ill. 322, 327 (1928); Wright v. Roseberry, 121 U.S. 488, 519 (1886).

A specific determination that certain lands within meander lines of a meandered non-navigable lake in Illinois had not been conveyed by the Swamp Land Act was held to be conclusive and not subject to collateral attack in Fuller v. Shedd, 161 Ill. 473, 44 N.E. 286, 295-296 (1896), affirmed 190 U.S. 508 (1903), discussed *supra*.

[67] Wright v. Roseberry, 121 U.S. 488 (1887). This case involved a situation where the Secretary of Interior had failed to designate any swamp lands under the act in the State of California. In this case, the Court held that designations by the state government were effective. [The Court noted that the United States Commission of the General Land Office had later approved the designations made by the state by so recording them on its approved plats. The Court said (at 121 U.S. 511) that a supplemental act of 1866 provided for the identification of swamp lands jointly by the Secretary of Interior and State of California.]

In the case that quoted this federal case (People v. Hatch, *supra*), the Illinois court said that proof of the fact that lands are swamp and overflowed lands is sufficient to vest title in the state and its grantees under the Swamp Land Act even though the lands had not been so designated by the Secretary of Interior. But it noted (at 590) that the lands within the meander lines had been later surveyed and patents issued under the Soldier's Homestead Act and that these patents were later cancelled "for the reason that at the time of the issuing of the patents the lands did not belong to the United States but did belong to the State of Illinois or its grantees." This may have in effect constituted a later conclusion by the Secretary that they were swamplands. People v. Hatch, *supra*.

In an earlier Illinois case the court took the view that if the Secretary failed to designate any swamp lands within a state and had not decided to the contrary, it could be shown by parol evidence on behalf of the state or one claiming thereunder, as against wrongful claimants, that a particular tract is of the character included in the Act. But it decided, as noted earlier, that the Secretary had made an express determination that the lands within the meander lines of a meandered but non-navigable lake were not swamp lands by officially denying a claim by the state and county involved. Fuller v. Shedd, 161 Ill. 462, 491 (1896). Other relevant Illinois decisions are described in a subsequent footnote.

An act of March 3, 1857, 11 STAT. 251, 43 U.S.C. 986, confirmed the claims of the states to selections of swamp lands under the Swamp Land Act of 1850 "heretofore made and reported to the Commissioner of the General Land Office, so far as the same shall remain vacant and unappropriated, and not interfered with by any actual settlement under any existing law of the United States . . ." and directed that they be approved and patented. In a letter dated Jan. 8, 1858, written to an official of the General Land Office concerned with swamp lands in Illinois, the Commissioner said that, among other questions to be determined before deciding that particular lands were confirmed to the state under that Act, he should ascertain whether the tract had been selected in the usual manner by an authorized agent, and the list containing it had been reported in due course to the commissioner (and had not been cancelled) before March 3, 1857. Based upon the letter as set out in LESTER, *op. cit.*, 43,

In a later case arising from Michigan, the United States Supreme Court said that the rule allowing oral evidence is limited "to cases in which there had been non-action or refusal to act on the part of the Secretary of Interior in selecting lands granted."[68] Similarly, in a later case arising from Arkansas where the Court held that lands within the meander lines of a meandered but nonexistent lake were not conveyed along with the swamp-land grant through selection and patent of surrounding lands, it further denied the claim that the lands passed under the Swamp Land Act "independently of any patent." The Court said: "The contention is not tenable. The lands were never listed as swamp lands and their listing does not appear to have been even requested . . ."[69]

Decisions of the Interior Dept., etc. at 558. The United States Supreme Court in 1897 said that the Act of 1857 did not purport to make swamp-land selections or proceedings absolutely final. It added that "It cannot fairly be construed as intending to put an end to all further inquiry in the land department, nor to oust that department of jurisdiction to inquire into and correct any frauds or mistakes, but was a general ratification and confirmation of the methods pursued." Michigan Land and Lumber Co. v. Rust, 168 U.S. 589, 601-602 (1897).

A lower federal court, in construing the effect of the swamp-land legislation of 1850, 1857, and 1860, discussed *supra,* and related legislation, noted that while the Act of 1857 confirmed to the states lists on file in the General Land Office prior thereto (recall, however, the qualifications in and concerning the Act described above), swamp lands otherwise generally could only be conveyed by being so designated by the Secretary of the Interior. It added that "In some instances the government has, by special legislation and through its officers of the Land Department, acted in co-operation with the states and their officers, and different methods have thereby been devised or sanctioned for identification, notably in Michigan and California . . . [citing Wright v. Roseberry, *supra,* regarding California and two other cases]. But these are exceptions to the general rule. . . ." Kearns v. Lee, 142 F. 985, 991, *et seq.* (1906). With respect to California, see also Tibbs v. Wilhoit, 138 U.S. 134 (1891); Heath v. Wallace, 138 U.S. 573 (1891).

[68] The Secretary of Interior under agreement with the State of Michigan had designated and prepared lists of all swamp lands in the state deemed to be conveyed under the Swamp Land Act of 1850. This list included some lands in the township but did not include the land in dispute. The Court, after reviewing previous cases, said that it would seem that omission of the land in dispute from such lists amounted to an identification of lands in the township conveyed by the Act, and later selection of the land by the state (and certification by the Secretary), under an 1852 act of Congress conveying lands to the state for the purpose of building a ship canal, effectively determined that the land was not conveyed by the Swamp Land Act. Hence, such action was not subject to later collateral attack by a private person endeavoring to prove to the court that they were swamp lands. Chandler v. Calumet and Hecla Mining Co., 149 U.S. 79, 89, 92 (1893).

See also McCormick v. Hayes, 159 U.S. 339, 345-348 (1895); Rogers Locomotive Works v. Emigrant Co., 164 U.S. 559 (1896); Sawyer v. Osterhaus, 212 F. 765 (1914); City of Los Angeles v. Borax Consolidated Ltd., 74 F. 2d. 901, 903 (1935); Dembitz, Land Titles (1895), at 546. See also Niles v. Cedar Point Club, 175 U.S. 300, 308-9 (1899) involving meandered marsh land where the Court noted that the State of Ohio had applied for it as swamp land but its application was denied in 1852.

[69] Chapman and Dewey Lumber Co. v. St. Francis Levee Dist., *supra,* 232 U.S. 186, 198 (1914), cited approvingly and relied upon in Lee Wilson and Co. v. United States, *supra,* at 245 U.S. 24, 31 (1917).

The Illinois court in the case involving a nonexistent lake (People v. Hatch, *supra* at 591) cited the *Lee Wilson* case for the proposition that, where a nonexistent

At any rate, to the extent that the state acquired title to lands under the Swamp Land Act it reconveyed this title to the counties for disposition under an 1852 Illinois statute,[70] and later amendatory and supplemental

body of water has been meandered, the government surveyors may later survey the lands within the erroneous meander lines and such lands may be sold by the government. But it failed to note that case's denial of the claim that land not included in swampland selections passed under the Swamp Land Act merely because it was eligible to do so.

The *Chandler* case, *supra,* 149 U.S. 79, was cited approvingly by the Illinois court in a 1931 case. The court said that where the Secretary of Interior had failed to determine that land was swamp land, the fact that it was such land could be proved by witnesses. But it concluded "The Secretary of the Interior not only did not certify the land in question to be swamp land, but on February 24, 1891, found it to be land of the United States subject to entry and sale and caused a patent to be issued . . . This patent . . . regular on its face, cannot be held inoperative . . . merely upon parol evidence that they were swamp and overflowed lands . . . and therefore passed to the State under the grant of such lands by Congress to the States." After citing the *Chandler* case, *supra,* McCormick v. Hayes, *supra,* and an earlier United States Supreme Court case, the court said, "The decisions of the Supreme Court of the United States in cases of this character are final and conclusive. . . ." Daggett v. Wilkinson, 345 Ill. 244 (1931).

In a 1923 case, the Illinois court had said that "if the Secretary of the Interior has not designated a tract as swamp land and refuses to do so, and has not decided that the tract is not swamp land, it may be shown by parol, on behalf of the State or one claiming thereunder, or against wrongful claimants, that such tract is of the character defined in the act." But it held that there had been no refusal on the part of the government to act and that, anyway, the lands were not of the character defined in the act. The case involved lands in the vicinity of a navigable lake. Wilkinson v. Watts, 309 Ill. 607, 611-12.

In a 1921 case, the court said that although the Secretary had failed to designate certain lands as swamp lands conveyed by the Act of 1850 the fact that they were such lands could be proved by witnesses. But it held that there was no such proof, noting that "Evidence was introduced that sometimes when the water in the lake was high a part of the land was overflowed, but none that the greater part of any legal subdivision was overflowed," noting further that legal subdivisions for such purposes constitute 40-acre tracts. See also Wilkinson v. Watts, *supra* at 611. The court held that a county's deed to an individual in 1909 was ineffective as a swamp-land grant. De Proft v. Heydecker, 297 Ill. 541, 545-546 (1921).

In a 1916 case, the court held that by virtue of the federal act and the Illinois Act of 1852 conveying swamp lands to the counties, it was not necessary to show that the land conveyed to an individual by a county in 1899 had been classified as swamp land and that proof of the fact that the land was overflowed land was necessary to invest the county with title. Burns v. Curran, 275 Ill. 448 (1916).

The court also held to the same general view in an 1885 case, noting that it was relying on the United States Supreme Court decision in Railroad Co. v. Smith, 9 Wall. 95. It noted that the later case of French v. Fyan, 93 U.S. 169 was said to have "shaken" the *Railroad* case, but it said "we should not feel authorized to depart from the rule it announces until the same has been clearly and distinctly overruled by that court." W., St. L., and P. Ry. Co. v. McDougal, 113 Ill. 603, 606 (1885).

Except for Daggett v. Wilkinson, *supra,* none of the Illinois cases discussed above appears to have cited the later United States Supreme Court decisions in the *Chandler* case or the *Chapman* or *Lee Wilson* cases, *supra,* even though some of them were later in time.

None of the above Illinois cases appears to have dealt with questions regarding meander lines in connection with swamp-land grants.

[70] Ill. Laws, 1852, at 178.

statutes.[71] A number of Illinois court decisions have construed the effect of conveyances of such lands by the counties to private landowners and have indicated that private landowners also could acquire title thereto against the counties through adverse possession.[72] The courts might rule that conveyances of adjoining lands by the counties to private individuals or others ordinarily did not convey title to the beds of meandered non-navigable lakes — and hence title was retained by the county — by applying the usual Illinois rule regarding conveyances of lands adjoining such lakes.[73] But no reported Illinois court decision has been located which deals with this question.

Swamp-land grants also may be of significance in another respect. To the extent that title to lands acquired under the Swamp Land Act may still be held by Illinois counties (which has not been ascertained), the public might be permitted to use any overlying non-navigable waters (contrary to the general rules of law described earlier) subject, however, to the control of the county which owns the bed.[74] Moreover, in conveying such lands to private interests, bed-ownership or public-use rights may have been expressly reserved by the grantor (state or county), although this probably seldom occurred.

In any event, it appears that the State of Illinois may still be able to apply to the Department of Interior to have the beds of non-navigable meandered lakes designated and conveyed to it under the 1850 Swamp

[71] For a discussion of such statutes see Whiteside v. Binchell, 31 Ill. 68 (1863); Dart v. Hercules, 34 Ill. 395, 403-405 (1864); W., St. L. and P. Ry. Co. v. McDougal, 113 Ill. 603 (1885); Dupue Rod and Gun Club v. Marliere, 332 Ill., 325-328 (1928).

An act passed March 4, 1854, is said to have repealed the parts of the 1852 act "which appear to grant the swamp and overflowed lands to the townships in the several counties" and to grant to and vest the title to such lands in the counties. Whiteside v. Binchell, *supra* at 77.

[72] The court has indicated that prescriptive rights could be acquired against a county in such a case because the county could dispose of swamp land it acquired at anytime, need not hold it for a public purpose, and the general public had no interest in such land in common with persons within the county. Hence, such land was not of such public character as would exempt it from the relevant statute of limitations. Hammond v. Shepard, 186 Ill., 235, 242 (1900); County of Piatt v. Goodell, 97 Ill. 84, 92 (1880). These two cases dealt with statutes of limitations regarding possession and payment of taxes for 7 years. See Ill. Rev. Stat., c. 83, §§ 6 to 8. The same result has been reached under statutes regarding 20-year or longer periods of adverse possession. See Gerbracht v. County of Lake, 328 Ill. 399, 401, 412 (1928); People v. Hatch, 350 Ill. 586 (1932). Ill. Rev. Stat., c. 83, § 1, *et seq.* See also Whiteside County v. Binchell, 31 Ill. 68, 78-79 (1863).

[73] Unless such conveyances expressly purported to convey title to the lake bed or to all parts of such lands as had been received as swamp lands from the state and federal governments. Note that we are here speaking of conveyances by state and local governments (not federal grants) over which the state has more freedom.

[74] And perhaps also subject to the purposes for which it was acquired or is held. However, the Illinois Court, in 1863 expressed the view that there were no mandatory restrictions in the applicable federal or state legislation, as amended, on the disposal or use of swamp lands conveyed by that legislation. Whiteside County v. Burchell, 31 Ill. 68. See also Pease v. Hubbard, 37 Ill. 254, 257 (1865).

Land Act and related statutes, especially if the United States Supreme Court ever directly decides that the state has not otherwise acquired title to such beds.[75] One question which might then arise is whether such beds would be regarded as already having been surveyed. If not, the state may not be entitled to them as swamp lands until they have been surveyed by the federal government.[76] Moreover, the Illinois legislation that provided

[75] The Secretary of Interior in a 1959 decision considered the application of the State of Wisconsin for a patent to certain lands under the 1850 Swamp Land Act. The application was denied on the grounds that the lands passed to the state under the 1848 school-land-grant legislation. But the Secretary implied that they otherwise would have passed to it under the Swamp Land Act upon their being resurveyed and shown to be swamp lands. This survey was approved in 1954. 66 Interior Dec. 136. See also 60 Interior Dec. 129 (1948) acting on a swamp-land selection list filed by the State of Louisiana in 1946 under swamp-lands statutes of 1849 and 1850.

The Assistant Secretary of Interior in 1931 stated that since Hardin v. Jordan, *supra,* the Department of Interior had followed the view that the federal government does not own the beds of streams or lakes, navigable or non-navigable, after it has disposed of the marginal uplands without reservations or restrictions and that the extent of riparian rights is governed by local law. Therefore, he said, the Department "could not consistently recommend suit whereby the Government would make claim of legal title to the beds of meandered nonnavigable lakes in Iowa, where the uplands were properly surveyed and disposed of." However, he noted that in Marshall Dental Co. v. Iowa, *supra,* the United States Supreme Court chose to leave undecided the question of whether the legal title to such a lake in Iowa "remained in the United States or passed to the State." 53 Interior Dec. 429. Previously, the Iowa Supreme Court in a 1909 case noted that the Secretary of Interior refused an application in 1903 to survey the bed of a meandered non-navigable lake as swamp land and that he had observed that "the title to the beds of all lakes that were properly meandered vest in the state by virtue of its sovereignty . . ." The court said that in view of the Secretary's decision "we are not prepared to say that this lake bed passed under the terms of what is known as the 'Swamp Act' of Congress . . ." State v. Jones, 143 Iowa 399, 401-402; *aff'd* without deciding this question in 226 U.S. 460 (1913). Both cases discussed *supra.*

[76] In the case discussed earlier involving the Indiana side of a lake also located in Illinois, the United Supreme Court appears to have indicated that the bed of the non-navigable meandered lake passed to the state as swamp land along with a swamp-land grant of the surrounding lands. The Court said "It is said that the land under water was not embraced in the survey of 1834. It would seem from the plat and the field notes that the sections and dividing lines were clearly marked off and posts set. . . . The land surrounding the water, at least, was surveyed, so that the identification of the submerged portion was absolute," Kean v. Calumet Canal Co., 190 U.S. 452, 460 (1902). The Court appears to have applied the alleged Indiana rule that a federal conveyance of adjoining lands ordinarily includes ownership of the bed of a non-navigable lake, meandered or not. It said further, at 459, that "the making of a meander line has no certain significance . . . It does not necessarily import that the tract on the other side of it is not surveyed or will not pass by a conveyance of the upland shown by the plat to border on the lake. It is not always a boundary . . . In this case its immediate import was only to indicate the contour of the lake . . ."

Nevertheless, in a later case arising from Arkansas, which involved the interpretation of a swamp-land grant of land surrounding a nonexistent meandered lake, as discussed earlier, the Court said "where in a survey of the public domain a body of water or lake is found to exist and is meandered, the result of such meander is to exclude the area from the survey and to cause it as thus separated to become subject

for the conveyance of lands acquired under the Swamp Land Act to the counties for their disposition might be regarded as still in force for this purpose, unless state legislation is enacted to prevent it.[77] But if it is still in force, the state conceivably might be able to secure certain agreements from a county concerning the use and disposition of such a lake before applying to the federal government to have it conveyed as swamp land.

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to the riparian rights of the respective owners abutting on the meander line in accordance with the laws of the several States. Hardin v. Jordan, 140 U.S. 371; Kean v. Calumet Canal Co., 190 U.S. 452, 459; Hardin v. Shedd, 190 U.S. 508, 519." Lee Wilson and Co. v. United States, 245 U.S. 24, 29 (1917). The method of survey and size of the lakes involved in this and the *Kean* case, *supra,* appear to have been quite similar.

The Department of Interior appears to have taken a position similar to the latter statement of the Court in 53 Interior Dec. 429 (1931) *supra,* and in its decision cited in 143 Iowa at 401, *supra.* See also 66 Interior Dec. 136, 139 (1959), *supra,* and 62 Inter. Dec. 401 (1955), which may have a bearing on the question.

[77] Although these statutes are not included in the current unofficial editions of ILL. REV. STAT. (nor in its tables of statutes) the officially-authorized ILL. REV. STAT. 1874 compiled by Hurd included under the heading "Swamp Lands" the following note:

"The original Act upon this subject (LAWS 1852, at 178) has been frequently amended. A large number of the amendatory acts are purely local, and taken together are quite voluminous. Few of the lands remain undisposed of by the counties to which they were granted. It is not probable that it would have proved satisfactory to have given the Acts which are general in their terms, without also giving those which are local. For these reasons all are omitted . . .

This was repeated in later unofficial editions of HURD, ILL. REV. STAT. and was carried in CAHILL AND MOORE, ILL. REV. STAT. (1935) and a number of prior compilations of the Illinois statutes. Hence, the 1852 statute apparently was regarded as still being in force at that time. It appears that a detailed review of each of the volumes of the Illinois statutes since 1852 might be necessary to determine whether the statute may have been expressly or impliedly repealed, either in its entirety or with respect to certain counties at one or more times since its enactment in 1852. See Treat, SCATES AND BLACKNELL, ILL. STAT. (1858) at 1162 for 1857 statutes (ILL. LAWS, 1857, pp. 41, 44) that repealed the 1852 act, at least in certain respects, as to designated counties. Examination of the indexes to each of the volumes of the session laws did not uncover any other swamp-land statutes.

A number of decided cases have spoken of the 1852 statute, including People v. Hatch, 350 Ill. 586 (1932), *supra.* But they apparently did not expressly consider whether the statute was currently in force at the time of the decision, the cases having dealt with earlier conveyances.

If the 1852 statute has been repealed, it is problematical whether it might nevertheless be effective to convey the swamp lands to the counties on the ground that the effective date of the conveyance might date back to the federal Swamp Land Act of 1850. The United States Supreme Court has treated the Act of 1850 as immediately giving the states then in being an "inchoate" title to lands subject to the Act but has indicated that ordinarily the title did not become perfect until they had been "identified as required and the legal title had passed by the approval of the Secretary" of the Interior. Work v. Louisiana, 269 U.S. 250, 255 (1925), involving lands that were not surveyed until 1871. See also Chapman and Dewey Lumber Co. v. St. Francis Levee Dist., 232 U.S. 186, 198 (1914); Lee Wilson and Co. v. United States, 245 U.S. 24, 31 (1917), discussed *supra.*

State Jurisdiction Over Natural Watercourses

In addition to the general police power of the state to regulate, within limitations, the use of water and other activities in the state, the State of Illinois has some rather specific types of jurisdiction over natural watercourses that will be commented upon here. The state has jurisdiction in the following subject areas with regard to the natural watercourses in the state:[1] It has the power 1) to regulate and control fishing in all waters of the state; 2) to control and protect all navigable waters of the state for purposes of navigation; 3) to control and regulate the exercise of all rights incident to the ownership of beds of all watercourses to which the state holds title, and 4) to control and regulate the general use of all public waters of the state. This is in addition to the powers and rights the state may have as riparian proprietor on a particular watercourse, and such regulatory functions as the administration of pollution control laws, discussed earlier under Pollution, and various other functions carried out by agencies of the state, discussed later. Each of these areas will be discussed separately.

Control and regulation of fishing. In an early case the court said:

> The power of the Legislature to pass laws for the protection and preservation of fish in the waters of the state has been so frequently exercised in this and other states, and such exercise has been so long and so uniformly acquiesced in, that the existence of the power, at the present day, is scarcely open to question.[2]

After quoting from cases of other states, the court continued at page 42:

> In none of these cases, so far as we have been able to examine, has the fact that a particular individual has the sole and exclusive fishery right, been held to exclude the legislative power to control and regulate the exercise of such rights.

The court quoted language from another case[3] to the effect that the sovereign authority owns wild game, including fish, in trust for all the people of the state, and thus has the duty to enact laws that "will best preserve the subject of the trust, and secure its beneficial use, in the future, to the people of the state . . . the question of individual enjoyment is one of public policy, and not of private rights."

This view had been earlier adopted in a case involving the power of the legislature to require fishways to be constructed in dams on streams.[4] In that case, the court traced the history of the law from King John's Magna Charta of June 15, 1215, and concluded that the law had always been to this effect.

Fish and animals *ferae naturae,* cannot become the subject of private

[1] Subject to applicable federal jurisdiction and laws, and interstate and international matters as discussed under Federal Matters, p. 230, Interstate and International Matters, p. 257, and Federal Law Regarding Ownership of Beds, p. 82.

[2] People v. Bridges, 142 Ill. 30, 41 (1892).

[3] Magner v. People, 97 Ill. 320 (1881).

[4] Parker v. People, 111 Ill. 581 (1884).

property while at liberty in their natural state, but they do "become the property of the owner of the soil when killed or captured thereon, and the right to kill or capture them is exclusive in such owner," which is a qualified property right.[5]

It is not clear to what extent the owner must have control over such animals for them to be "captured" in the sense the term is used here. If a landowner has fish in a lake or pond wholly upon his own land, are they captured to the extent that the state no longer has the power to control and regulate over them? They apparently are not if the lake or pond has an outlet, or is ever connected with another body of water for a long enough time that fish could pass from one to the other. In *People v. Bridges*[6] the court, in discussing this point with regard to the body of water concerned in that case, said at page 40:

> While said body of water has no continuous connection with the river situated but a few yards away, such connection is established during all periods of high water, and continues for a sufficient length of time to allow fish to pass into it, or the fish in the lake to escape therefrom.

The court continued by saying that, even though the connections were only once or twice a year, it was sufficient to bring the pond under the regulatory power of the state. This indicates that if the pond had been entirely disconnected from other watercourses and never overflowed into one, the court might concede that the fish in the pond were "captured" in a legal sense, thus making them the property of the landowner and not subject to the regulatory power of the state.

This issue has never been expressly decided in Illinois. However, under the present Fish Code,[7] the Department of Conservation has assumed that it has regulatory jurisdiction over all bodies of water, including those that do not connect with another body of water.[8]

The Attorney General has expressed the opinion that a fishing license issued by the state gives the licensee only a permit to take fish under certain regulations and, if the stream or lake bed is privately owned and not owned by the licensee, with the consent of the owner of the underlying bed.[9] The Attorney General has also said that the fact that a stream has been stocked with fish by the state or designated by it as a fish preserve does not confer upon the public the right to trespass upon waters over privately-owned stream beds.[10] On the other hand, the Attorney General has said that such waters may be designated by the state as a fish preserve

[5] Schulte v. Warren, *supra*, at 122.

[6] *Supra*, note 2.

[7] ILL. REV. STAT., c. 56, § 161, reads in part as follows: "This act shall apply only to the fish, frogs and mussels and parts thereof in or from any of the lakes, rivers, creeks, sloughs, bayous, or other waters or watercourses wholly within the jurisdiction of the State of Illinois, or over which the State of Illinois has concurrent jurisdiction with any other State . . ."

[8] As stated by Lewis E. Martin, Administrative Assistant, Dept. of Conservation, in a conversation with the authors on Aug. 25, 1959.

[9] 1923-24 ILL. OPS. ATT'Y GEN. 358, 360.

[10] 1932 ILL. OPS. ATT'Y GEN. 558; 1917-18 ILL. OPS. ATT'Y GEN. 495, 498.

without the consent of the bed owner, who thereby becomes subject to the fishing restrictions or prohibitions applicable to such waters.[11]

There are a number of things that the state may do in fulfilling its role as trustee of the public interest in the fishery of the state. It may certainly restrict the times of the year during which a person is allowed to take fish, the number and kinds which they may take, and the methods by which the fish may be caught.[12] It may also forbid the erection of an obstruction in streams that does not provide some means whereby the fish may pass over or around it.[13] Such a limitation upon the right of a riparian owner to perform acts for the realization of his riparian rights to the use of the water of the stream is a legitimate means of regulating and protecting the common ownership of fish in the state from individual interference. For example, the court in an 1884 case indicated that the state may require that fishways be constructed in dams on streams, even though the expense might be great and even though the dam might have been in existence without a fishway for over 20 years.[14]

[11] 1917-18 Ill. Ops. Att'y Gen. 495, 498-499.

With respect to Illinois legislation regarding state fish preserves, see People v. Walton, 314 Ill. 45 (1924); People v. Dieckmann, 285 Ill. 97 (1918). The validity of such legislation was upheld. But certain legislation, since repealed, was held to violate the provision in the Illinois constitution (art. 4, § 22) prohibiting the passage of local or special laws for the protection of game and fish, as it exempts Lake Michigan from its application. People v. Wilcox, 237 Ill. 421 (1908). None of these cases appear to have dealt with the matters covered in the Attorney General opinions as discussed above.

The current legislation regarding fish preserves appears in Ill. Rev. Stat., c. 56, § 243. It provides, among other things, that the Department of Conservation may set aside various waters as fish preserves or restricted fishing areas, giving notice thereof by publication, and that "all waters located upon State-owned lands and upon United States of America-owned lands where the United States of America consents thereto, shall be fish preserves, within the meaning of this Section, unless otherwise exempted." It is also provided that the Department "shall have power and authority to close the waters of any fish preserve, or parts thereof, or waters privately owned, against fishing of all kinds, when protection of certain species of fish is found necessary after a thorough field examination . . ." See also c. 56, § 144.03 regarding the acquisition, by the Department, of waters and lands and access thereto for fish propagation, etc., public fishing and recreation areas, and conservation lakes and public fishing grounds. The Department's activities under such legislation are briefly described under State Departments, Boards and Commissions, p. 143.

[12] People v. Bridges, *supra*. But the state cannot confiscate and summarily destroy fish nets which were of considerable value and not being used for any illegal purpose at the time of confiscation. See Cox v. Cox, 400 Ill. 291 (1948).

[13] Parker v. People, 111 Ill. 581 (1884). But fishways apparently are no longer required in Illinois because fish specialists have learned that they are unnecessary for the proper propagation and growth of the types of fish found in Illinois. In fact, such structures may prove harmful to the game fish of Illinois because they may allow passage of certain rough fish, such as carp, into waters that might otherwise be kept relatively free of them. (As stated by Lewis E. Martin, *supra*.)

[14] *Ibid.* The defendant was fined for violating an 1879 statute requiring fishways in dams. The court construed an 1857 statute specifically authorizing the dam in question to be raised or replaced as giving no authority to obstruct the passage of fish. The court said that the river in question was a navigable stream and that the legislature may prevent obstructions of such streams. It added that "all must know that any

The statute that created the Sanitary Water Board provides in part that:[15]

Any person who violates any of the provisions of, or fails to perform any duty imposed by this Act, or who violates an order or other determination of the Board promulgated pursuant to this Act, and causes the death of fish or aquatic life shall, in addition to the other penalties provided by this Act, be liable to pay the State an additional amount of money for fish or aquatic life destroyed; the Board after consultation with the Department of Conservation shall, through the Attorney General, bring an action against such person and recover the reasonable value of the fish or aquatic life destroyed by such pollution. Any money so recovered shall be placed in the Game and Fish Fund in the State Treasury.

This provision apparently has not been in issue in any of the reported Illinois appellate court decisions.[16]

A section of a statute, amended by the Illinois legislature in 1941, reads in part as follows:

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obstruction to the passage of fish necessarily must obstruct the passage of boats and other water craft." But the court went further and said (pp. 588-589 and 597-599):

"The nature of fish impels them periodically to pass up and down streams for breeding purposes, and in such streams no one, not even the owner of the soil over which the stream runs, owns the fish therein, or has the legal right to obstruct their passage up or down, for to do so would be to appropriate what belongs to all to his own individual use, which would be contrary to common right, and all having a common and equal ownership, nothing short of legislative power can regulate and control the enjoyment of this common ownership. This must be so from absolute necessity. There is not, nor can there be, any other means of protecting each individual in the enjoyment of the rights his joint ownership confers, hence the necessity of legislative action to preserve and protect the rights of each and all in their common inheritance. Therefore the power of the legislature to act must be admitted.

". . . All will concede the vast importance of commercial and manufacturing interests of the country, and in recognition of their importance these interests have received aid and protection from the government; but no one can say they are of paramount importance more than an abundant supply of cheap food for the people, nor should the sources of such a supply be sacrificed to either or both of the other great interests. Commerce, manufactures and trade concern the opulent or persons in easy circumstances, but the supply of food vitally concerns the struggling masses, upon whose labor the other interests are wholly dependent. Their labor is indispensable to the very existence of commerce, manufactures and trade, and their interests and wants are of as essential importance, and are as worthy of the protection of government, as the others. The interests of an owner of a mill or factory do not require the sacrifice of this great public interest by strained construction or refined distinctions. Its regulation is manifestly as public in its character as many others that have always been under legislative control, and never challenged or even questioned.

. . . this is one of the great purposes for which the State government was brought into existence, and the legislature has no competent authority to permanently grant or barter it away. That it may suspend the right, and license persons to create such nuisances, none can deny; but the license may be revoked at will, as the licensee acquires no vested rights under the license. This power can only be destroyed or withheld by the people when framing and adopting a constitution."

[15] Ill. Rev. Stat., c. 19, § 145.13(b).

[16] But see the *Sycamore Preserve Works* case described in Appendix B for an example of the Board's activities before a lower court under this provision. See also note 84, p. 44, regarding the magnitude of recent activity under this provision.

It shall be the duty of the Department of Public Works and Buildings . . . to establish by regulations, water levels below which water cannot be drawn down behind dams from any stream or river within the State of Illinois, in order to retain enough water in such streams to preserve the fish and other aquatic life in the stream, and to safeguard the health of the community.[17]

In view of the definition of streams in another section of the act,[18] it is problematical to what extent such jurisdiction may be extended to non-navigable as well as navigable streams.[19]

The constitutionality of this section has never been challenged. However, in view of the preceding discussion, the court may be willing to hold that it is a reasonable means of protecting the public interest in and ownership of the fish of the state, notwithstanding that fishing rights in streams, whether navigable or non-navigable, usually are held exclusively by riparian landowners rather than the general public.[20] The establishment of more general minimum stream flow requirements might also be upheld on similar grounds, although no attempt has yet been made by the State of Illinois to regulate and protect the public interest in such a manner.

Jurisdiction over navigable waters.[21] As mentioned earlier, there is a public trust residing in the state to protect the rights and benefits of the people of the state in the navigable waters of the state, arising as a result of the public easement of navigation in navigable streams,[22] as well as public fishing, boating, and other public rights in meandered or navigable lakes or ponds.[23] As trustee of the easement of navigation, the state has a duty to regulate and control its use by the public and to protect it against wrongful encroachment. The state apparently may utilize any necessary and reasonable means of fulfilling its duties in this respect,[24] subject to the paramount power of the federal government to control and regulate certain navigable waters.[25]

If a structure erected by an individual obstructs the free exercise by the public of its easement of navigation, it is treated as a "purpresture,"[26] and, if it is a nuisance, the state may seek its abatement in the courts.[27] The court has said:

[17] Ill. Rev. Stat., c. 19, § 70.

[18] *Id.* § 65.

[19] See discussion under Municipal Water Use, p. 75.

[20] The public health aspects of the statute will be discussed in a later section. In practice, the department has never attempted to establish such minimum water levels.

[21] See section on Navigable Waters, p. 60.

[22] See Bowes v. Chicago, 3 Ill. 2d. 175, 120 N.E. 2d. 15, 22-23 (1954); *cert. denied,* 348 U.S. 857 (1954). Also see Easement of Navigation, p. 65.

[23] See State Jurisdiction over Natural Watercourses, p. 109.

[24] See Bowes v. Chicago, *supra;* People v. St. Louis, 10 Ill. 351 (1848); Duck Island Hunting and Fishing Club v. Gillen Co., *supra,* 330 Ill. 121, 161 N.E. 300, 305; Revell v. People, *supra,* 52 N.E. 1052, 1060.

[25] See Bowes v. Chicago, *supra;* 1951 Ops. Att'y Gen., Ill. 273. See Federal Matters, p. 230, for a discussion of federal jurisdiction over navigable waters.

[26] That is, a private person's obstructing the public from enjoying the use of something that belongs to the public or is by right to be free and open to the public.

[27] People v. St. Louis, 10 Ill. 351 (1848).

It is not every purpresture that amounts to a nuisance, and if it does not, when the interposition of a court of equity is invoked, it will take upon itself to inquire whether, all things considered, the interests of the state would be promoted by its interference, and if they would not, the court will refuse its aid. But if the purpresture amounts to a nuisance, then the court cannot inquire how the public good may be affected, but will interpose and abate or restrain the nuisance, for the court cannot sanction a public nuisance. . . . But where . . . the nuisance could never be abated, and the public rights could never afterwards be enjoyed, the court may not evade its manifest duty as pointed out by the law, but must effectually and in earnest interpose its restraining power. It is the business of another department of the government to determine whether the welfare of the state, and the interests of the public can permit these works to progress.[28]

The obstruction in question was the filling in of a navigable channel of the Mississippi River by the City of St. Louis. The court said, in summarizing the above quotation, that "the legislature is the proper department to judge what the interests of the state require, or may permit, and it is there, and not to the court, that appeal must be made, for the sanction of, or permission to erect these works."[29]

It is upon this power that the state requires that plans for any fills or structures in navigable waters be submitted for approval to the Department of Public Works and Buildings and a permit obtained before work can be lawfully begun.[30] This and other statutory provisions are discussed later. It also may be noted that an Illinois statute provides that "It is a public nuisance . . . to obstruct or impede without legal authority, the passage of any navigable river or waters." This statute provides for criminal prosecution and abatement.[31]

Subsequent to the case quoted above, the legislature enacted a statute authorizing muncipalities to reclaim submerged land under any public waters within or bordering on their limits (by purchase, condemnation, or otherwise) for the purpose of constructing water purification plants, wharves, terminal facilities and other specified purposes. In a 1954 case involving this statute as applied to Lake Michigan, it was argued by one of the parties that the state's public trust responsibility in navigable waters overlying state-owned beds "is not limited to the purposes of navigation, commerce and fishing, but extends to the promotion of the interest of the public and to protect the public purpose and public benefit." The court said "we are inclined to the belief that the State holds title to submerged lands subject to a trust the purpose of which is to protect all of the interests and benefits of the public in the navigable waters within the State of Illinois." But the court said it was unnecessary to fully discuss the limits and extent of this public trust because it found that in the case before it the reclaiming of submerged land under navigable waters by a

[28] *Id.* at 374.
[29] *Id.* at 375.
[30] See ILL. REV. STAT., c. 19, §§ 65, 65a *et seq.*
[31] *Id.* c. 100½, §§ 26(4), 29; Swain v. Chicago, 252 Ill. 622, 626 (1911).

city for the public purpose of erecting a filtration plant, as authorized by the statute, would not materially interfere with navigation. The court said that "it is only substantial material interference or obstruction with practical navigation upon the lake which is to be protected against."[32]

It may be noted that a constitutional amendment adopted later the same year (1954) provides that the state may sell or lease any canal or waterway owned by the state upon such terms as may be prescribed by law.[33]

Jurisdiction over beds of watercourses. Jurisdiction over beds (submerged lands) includes the power and duty to control, regulate, and protect, as trustee, the interests of the public incident to their ownership of the beds of meandered and of navigable lakes.[34]

Within the limits of its trust responsibilities, the rights over which the state has jurisdiction are the same as those enjoyed by an individual owner of the bed of a watercourse. It may utilize any reasonable means of controlling, regulating and protecting these rights, in the interest of the general welfare the same as it may do in effecting its jurisdiction with respect to the easement of navigation. It may sue to prevent the appropriation of such beds by the erection of structures that would cause accretions of soil to form along the banks to which the bordering owners would obtain title.[35] It may also prevent the erection of any structures upon such land without its consent.[36]

It may be noted that *Illinois Statutes Annotated,* chapter 19, section 150, enacted in 1937, provides that:

> The State of Illinois for the benefit of the People of the State and in pursuance of protecting the trust wherein the State holds certain lands for the People, hereby elects and determines to assert and reclaim the title to lands of the State of Illinois now submerged and lands that were formerly submerged, but that have been illegally filled in, reclaimed and occupied, and also any such lands that may have been allotted to any person or corporation, public or private, and which have been illegally filled in, reclaimed and occupied, or which are not used and occupied for the purposes for which they were allotted.[37]

This act was preceded by the following preamble:

> Whereas from time to time it has been deemed advisable to have an inquiry

[32] Bowes v. Chicago, *supra,* 120 N.E. 2d. 15, 22-23 (1954), construing ILL. REV. STAT., c. 24, § 49-11. See note 63 p. 121, regarding the question of obtaining a permit from the Department of Public Works and Buildings. The case involved Lake Michigan. See Federal Matters, p. 230, regarding the question of federal jurisdiction.

[33] AMEND. ILL. CONST., separate § 3. See discussion of this in the next section.

[34] See Lakes and Ponds, p. 77. (The general rule, with some possible exceptions, is that riparian owners rather than the state hold title to the beds of streams, both navigable and non-navigable. See Ownership of Bed of Navigable Streams, p. 67. The state also may hold powers of disposition over certain portions of beds of rivers, streams, and lakes that the state has acquired by grant, gift, purchase, or through condemnation.

See also Federal Law Regarding Ownership of Beds, p. 82.

[35] Brundage v. Knox, 279 Ill. 450 (1917).

[36] See Revell v. People, *supra.*

[37] See discussion of the function of the Department of Public Works and Buildings in regard to such activities under Jurisdiction over Public Waters, p. 116.

into the riparian rights and title of the State of Illinois in and to the lands that vested in the State by virtue of its admission into the Union.

Jurisdiction over public waters. By a legislative enactment in 1911, as amended, the Department of Public Works and Buildings, upon behalf of the state, is stated to have jurisdiction and supervision over all of the rivers and lakes of the state wherein the state or the people of the state have any rights or interests.[38] It is charged with the responsibility of assuring that such waters are not encroached upon or used by any "private interest" except as allowed by law, and then only after permission is obtained from the Department.[39] Another section requires that a permit be obtained before any fill, deposit, or structure can be lawfully placed in any of the public bodies of water within the state.[40]

The statute provides that:

> Wherever the terms public waters, public bodies of water, or streams and lakes are used or referred to in this act, they shall be construed to mean all open public streams (except as to any sanitary district channel now constructed or being constructed) and lakes capable of being navigated by water craft in whole or in part for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharge their waters into navigable lakes or rivers within, or upon the borders of the State of Illinois, together with all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water and directly accessible thereto.[41]

This definition is rather comprehensive and seems to include a wide range and type of waters. In one case, construing its meaning, the supreme court held that the Illinois river, a navigable stream, was subject to a permit requirement regarding drainage districts.[42] But in another case it held otherwise regarding a portion of a lake on the river side of a levee that was constructed across the lake so that the part of the lake between the levee and the river had for many years become a dead body of water.

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[38] ILL. REV. STAT., c. 19, § 52.

[39] *Id.* § 54.

[40] *Id.* § 65. Fine and imprisonment are provided for noncompliance with the provision.

[41] *Id.* § 65.

Since the terms public waters, public bodies of water, or streams and lakes seem to be used interchangeably, the authors, for convenience, will usually refer simply to "public waters" in further discussion of this provision.

The statute specifically exempts harbors under the jurisdiction and control of a park district and existing yacht club facilities, their improvements or replacements, even if in a new location. It also exempts the location of any harbor under the jurisdiction and control of any city or village of less than 500,000 population. *Id.*, § 65.

The quoted definition has remained the same since the amendatory act of 1919 (ILL. LAWS, 1919, at p. 972) except for later inclusion of the above exemptions.

[42] Duck Island Hunting and Fishing Club v. Gillen Co., 330 Ill. 121 (1928).

The court, after quoting this statutory definition, said:

It is not a stream, nor is it navigable, nor in its natural condition capable of being made navigable (and is, therefore, not public waters as described in the act). After it emerges from the high banks immediately beyond the head levee it spreads over a lot of low swamp lands and loses its identity as a body of water.[43]

Hence, the court held, it was not necessary for a drainage and levee subdistrict that proposed to discharge water into such area to comply with the statute requiring such districts to obtain the approval of the Department before undertaking any work in a stream or work that would change its course or increase the flow of water to be discharged into it.[44]

An appellate court, in construing the definition for the same general purpose, said that the permit requirement regarding drainage districts "has no application to any river unless it is a navigable stream or one of the public waters of the State as defined" above. The court held that the river in question was not a navigable stream and therefore was not subject to the statutory requirements, without considering whether it may have connected with or discharged into a navigable stream or lake.[45]

In still another case, involving the construction of a power dam, the supreme court held the river in question to be a stream over which commerce could not be carried on and therefore to be non-navigable and not among the public waters of the state, and said: "The river is therefore not under the exclusive jurisdiction of the Department of Public Works and Buildings, but for the purposes in question in this suit is under the jurisdiction of the Commerce Commission."[46]

The Illinois Attorney General in 1954 stated the opinion that the beds of meandered lakes are owned by the state and that such a lake was a public body of water within the meaning of the act of 1911 for the purpose of determining whether the permit requirements regarding the erection of structures, etc. are applicable.[47] He subsequently stated that such permit requirements were applicable to the lake because its waters are discharged into a navigable river and hence it was within the meaning of the statutory definition quoted above.[48] In another opinion, he reiterated that a meandered lake is subject to the act, but he stated that the act does not authorize the issuance of such permits regarding non-navigable streams

[43] Gottschall v. Zipple, 308 Ill. 428, 434 (1923).

[44] See Ill. Rev. Stat., c. 19, §78.

[45] Springfield v. North Fork Outlet Drainage Dist., 249 Ill. App. 133, 142 (1928).

[46] Central Ill. Public Service Co. v. Vollentine, 319 Ill. 66, 68 (1925). The court did not expressly discuss the above definition of public waters.

[47] The application for a permit that was in question was for the purpose of constructing a collapsible dam across the outlet of a lake. Letter opinion addressed to E. A. Rosenstone, Director, Dept. of Public Works and Buildings, dated Feb. 18, 1954.

[48] Letter opinion, addressed to the Director, Dept. Public Works and Buildings, dated March 26, 1954, at p. 5.. The lake involved, called Matanzas Bay (or Lake), apparently discharges directly into, and is directly connected with, the Illinois River. See p. 2 of letter opinion of Feb. 18, 1954, note 47 *supra*.

since the state has no property right or interest in them and they are not public bodies of water within the meaning of the act.[49]

The Attorney General has expressed the opinion that the above statutory definition of public waters should be construed in connection with another section (chapter 19, section 52) which provides in part that the Department shall have jurisdiction over rivers and lakes wherein the state or the people of the state have any rights or interests. He said that although a certain slip (also called a cove or inlet) was connected with Lake Michigan, it had been artificially constructed on private property and was not within the Department's jurisdiction. He concluded that the landowner could fill in the slip without any necessity of requesting a permit from the Department.[50]

Recently the Attorney General expressed the opinion that the portion of a meandered lake that is located within a School Section 16 does not constitute public waters of the State of Illinois over which the Department has jurisdiction, but the entire beneficial interest therein was vested in the inhabitants of the township for school purposes under the direct supervision and control of locally elected public officials.[51] He said that the answer would be the same whether title is still held by the state in trust for the use of the township inhabitants for school purposes or has been conveyed to private purchasers as authorized by law. (The applicant for

[49] Letter opinion addressed to Director, Dept. of Public Works and Buildings, dated July 15, 1954, at pp. 4, 6. The waters in question were the Fox River, said to be non-navigable at the location in question, and a meandered lake in the Fox Chain-o'-Lakes area.

This opinion was in accord with the view expressed in an earlier opinion (Ops. Att'y Gen. 1949, at 173) in which the Attorney General said that it would appear from Central Ill. Public Service Co. v. Vollentine, *supra,* that the Department has no jurisdiction over non-navigable streams (except where the state is a riparian owner). He also cited the case of People v. Economy Power Co., 241 Ill. 290 (1909) to the effect that title to the bed of a non-navigable stream is in the riparian owner "free from any burdens in favor of the public" (see p. 318 of the case). The court there held that a non-navigable stream could not be made navigable by legislation, nor by artificial improvements without compensating riparian owners damaged thereby. But the Department's jurisdiction was not involved and the court did not expressly consider the question of possible state jurisdiction over non-navigable streams to protect public rights in connecting navigable streams, such as against withdrawal or detention of water so as to impair navigation thereon.

In a later opinion the Attorney General again stated that a non-navigable stream is not within the definition of public waters and not subject to the Department's jurisdiction under the act. Ops. Att'y Gen. 1957, 24, 29-30, citing Central Ill. Public Service Co. v. Vollentine, *supra;* Springfield v. North Fork Outlet Drainage Dist., *supra;* People v. Economy Power Co., *supra,* 241 Ill. 290, 318; and Hubbard v. Bell, 54 Ill. 110, 114 (1870) in which the court indicated that a non-navigable stream is private property not subservient to public use (except through such procedures as dedication) but, as in People v. Economy Power Co., *supra,* the Department's jurisdiction and the question of protecting public rights in *connecting* navigable streams was not involved.

[50] Ops. Att'y Gen. 1957, at 224. He noted that the slip had not been dedicated to public use. (See Dedication to Public Use, p. 59.) He expressly left undecided, however, any question of federal jurisdiction over the slip.

[51] Ops. Att'y Gen. 1959, at 165.

a permit to construct a levee claimed that the lake bed involved was privately owned.)

Section 1 of the enabling act of April 18, 1818 (3 U.S. Stat. at Large 428) pursuant to which Illinois was admitted to the Union, provided that the state, when formed, "shall be admitted into the union upon the same footing with the original states, in all respects, whatever." The Attorney General said this is the basis for the rule that title to meandered lakes is vested in the state in trust for all the people of the state. But he felt this *general* provision must yield to section 6 thereof, which is a *specific* provision. It provides, in part, that, if accepted by the convention of the Illinois Territory, the following proposition would be obligatory upon the United States:

> First. That section numbered sixteen, in every township, and, when such section has been sold or otherwise disposed of, other lands equivalent thereto, and as contiguous as may be, shall be granted to the state, for the use of the inhabitants of such township for the use of the schools.

He noted that the beneficial use of such property "was not vested in *all* of the people of the State of Illinois, as is the case of meandered lakes generally," and that the Department's jurisdiction is limited to waters in which all the people have rights or interests, quoting the applicable statute.

The Attorney General has further expressed the opinion that an artificially constructed canal is not subject to the act unless it comes within the scope of the words "lakes, rivers, and streams," but that a 9-mile navigable canal built by federal authorities on federally-purchased land, to carry navigation around a portion of the Mississippi River that included rapids, was an integral portion of the river for navigation purposes and was thus a public body of water subject to the act.[52]

Some of the language of the statute might be construed as an attempt to confer upon the state powers of control and regulation, in excess of its powers with regard to the interests of the people of the state, in the easement of navigation in navigable streams and lakes and rights incident to its ownership of the beds of meandered and navigable lakes which are held in trust by the state for the benefit of the people. However, the sections conferring general jurisdiction and supervisory powers[53] expressly limit the powers to rivers and lakes in which "the State or the people of the State have any rights or interests." This limitation, and the language employed in the definition quoted above, may mean that the Department's jurisdiction is limited to the safeguarding of public rights and interests in navigable streams and rivers, and meandered and navigable lakes,[54] although it possibly may be exercised for such purposes over certain connected or related waters. Thus, the permit requirement regarding the erection of structures, etc. may be primarily a method of assuring that there is no interference with public rights and interests.

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[52] Ops. Att'y Gen. 1956, at p. 53, citing People v. Improvement Co., 103 Ill. 491 (1882) and Allot v. Wilmington Power Co., 288 Ill. 541 (1919).

[53] Ill. Rev. Stat., c. 19, §§ 52, 54.

[54] Those waters in which there may be either an easement of navigation or ownership of the bed by the state in trust for the people of the state. See discussion under Navigable Waters, p. 60, and Lakes and Ponds, p. 77.

The following provisions indicate the Department's powers:

1. The statute requires, as a condition precedent to the issuance of a permit "for a structure, fill or deposit in a slip" a signed statement approving the proposed action of the person requesting the permit, by all riparian owners whose access to the waters will be directly affected by the proposed work.[55] All work done under a permit to fill or deposit in a slip shall be done under the Department's direction.

2. The Department shall "establish by regulations water levels below which water cannot be drawn down behind dams from any stream or river within the State of Illinois, in order to retain enough water in such streams to preserve the fish and other aquatic life in the stream, and to safeguard the health of the community." In view of the definition of streams quoted above, it is problematical to what extent such jurisdiction may be extended to non-navigable as well as navigable streams.[56] It also may be noted that, unlike the law with regard to lakes, riparian landowners rather than the general public ordinarily hold fishing rights in navigable streams. But the state holds title to wild fish and game and may regulate the exercise of individual fishing rights.[57]

3. If the carrying capacity of any stream is limited and impaired by any actions within the Department's jurisdiction under this statute so as to constitute "a menace to property along the course of said stream or safety of the people of the State, or results in damage, overflow, or an interruption to navigation, or if water is being drawn down, or is about to be drawn down in contravention of the water level regulations established by the Department . . . (it) shall take such action as may be required, by injunction or otherwise, to prevent" such actions.[58] Another section of the act gives the Department general jurisdiction over public waters to protect "the rights of the people of the State in the full and free enjoyment of such waters" but without impairing their rights to "fully and in a proper manner, enjoy the use" of such waters. Every "proper use" they may make "shall be aided, assisted, encouraged and protected" by the Department.[59] Still another section of the act provides that if the Department believes that any bodies of water in the state have been wrongfully encroached upon by private interests it shall take appropriate action either to recover full compensation therefor or to recover the use thereof for the people of the state.[60]

[55] ILL. REV. STAT., c. 19, § 65. See note 125, p. 49, regarding riparian rights of access to navigable waters. Section 65 further provides that no such permit shall be issued without the approval of the Governor or without a public hearing. The term "slip" has been applied to a "cove or inlet" by the Attorney General, as noted above.

[56] ILL. REV. STAT., c. 19, § 70. In practice, the Department has never attempted to establish such minimum water levels.

[57] See discussion of these matters under Control and Regulation of Fishing, p. 109.

[58] ILL. REV. STAT., c. 19, § 70.

[59] *Id.* § 73.

[60] *Id.* § 60. Penalty and other enforcement powers, including representation by the Attorney General, are discussed under Administrative Remedies, p. 217.

4. The Department is specifically authorized to issue permits to nonriparians to use water from public bodies of water for industrial, manufacturing, and public utility purposes, provided that "such use does not interfere with navigation." Such permits, although renewable, cannot be issued for a period exceeding 40 years and must be approved by any municipality which borders on the body of water which is the source.[61]

5. Subdivision plats drawn for any land bordering on or including any public waters in which the state has any property rights or interests shall be reviewed and approved by the Department as to the boundary line indicated on the plat "between private interests and public interests" before being recorded.[62]

6. The Department may make agreements up to 5 years in duration to allow persons who have been issued permits to erect structures, etc., also to remove minerals from the beds of streams and lakes (and the Department may receive compensation for such removal).[63]

[61] *Id.* § 65. Note that this requirement tends to indicate that municipalities have some preferred right to the water. See Municipal Water Use, p. 75, concerning the possibility of preferred rights of municipalities to use navigable waters.

[62] *Id.* § 54.

[63] *Id.* § 65a *et seq.* Special provisions are applicable to areas within park districts and to a certain portion of the Chicago Harbor in Lake Michigan.

Other functions of the Department are discussed later. See Department of Public Works and Buildings, p. 144.

It may be noted that in a 1954 case the court said that the permit requirements of this act did not have to be complied with by municipalities acting under a later statute which authorizes muncipalities to reclaim submerged land under any public waters within or bordering their limits (by purchase, condemnation, or otherwise) for the purpose of constructing water-purification plants, wharves, terminal facilities and other specified purposes. Bowes v. Chicago, *supra*, 120 N.E. 2d. 15, 31 (1954), construing the effect of ILL. REV. STAT., c. 24, § 49-11 (which became § 111-117-11 of the ILL. MUNICIPAL CODE in 1961). The court said that a 1949 amendment of this section to embrace the construction of water-purification plants constituted an exception to c. 19, § 65 on the grounds that an act of general application must yield to a more specific statute relating to a single subject, particularly where the more specific provision is enacted later.

In the above case the court held that the City of Chicago did not need a permit from the Department to reclaim submerged land for the construction of a water filtration plant in Chicago Harbor in Lake Michigan. (The Attorney General similarly concluded, on the basis of this case, that the Chicago Park District needed no permit from the Department to fill in certain submerged lands in Lake Michigan for park purposes. OPS. ATT'Y GEN. 1956, pp. 126, 132.) It should be noted, however, that later amendments of ILL. REV. STAT., c. 19, §§ 65 and 65a contain certain provisions which may indicate that a permit would be required by municipalities to erect certain structures in, or remove materials from the bed of, Lake Michigan, and perhaps other public waters, and which prohibit the construction of harbor facilities, etc. in a certain part of Lake Michigan. But another later amendment exempts "the location of any harbor under the jurisdiction and control of any city or village of less than 500,000 population." ILL. LAWS 1959, at p. 553.

Following the *Bowes* case, the Attorney General expressed the opinion that the Department may not authorize the erection of a private boat harbor in Lake Michigan. OPS. ATT'Y GEN. 1954, at p. 192.

The Attorney General has expressed the opinion that the act does not authorize the Department to issue permits to construct an outlet channel and divert water from public bodies of water.[64] He said that, although chapter 19, section 65 of the statutes relates to certain obstructions or structures in public waters, it does not authorize the construction of outlets.[65] The outlet in question was to divert water from a lake through the outlet into artificial channels leading into the interior of an adjoining subdivision, presumably for boating and related purposes.[66]

It may be noted that the cited section has been later amended to specifically require a permit from the Department to build any "causeway, harbor or mooring facilities for watercraft." It also may be noted that the cited section of the act specifically authorizes the issuance of permits to nonriparians to use water from, and construct intakes in, public bodies of water for industrial, manufacturing, and public-utility purposes under certain conditions, as discussed above.

The Attorney General has expressed the opinion that the Department may, under the authority of this provision, permit the withdrawal of water from a public body of water through a pipeline for industrial and manufacturing purposes "if the applicant therefor has procured the prior approval of the proper Federal authority in this respect, and where the

[64] Citing two court decisions to the effect that the Department has no powers or authority beyond that conferred on it by the legislature. Dept. of Public Works and Buildings v. Ryan, 357 Ill. 150, 155 (1934); Dept. of Public Works and Buildings v. Schlich, 359 Ill. 337, 346 (1935).

[65] Letter opinion addressed to E. A. Rosentone, Director, Department of Public Works and Buildings, dated July 15, 1954.

[66] Since the Attorney General cited c. 19, § 54, which purports to give the Department general jurisdiction regarding private use of public waters, as noted earlier, he apparently felt it provides no authority for issuing such a permit.

On the other hand, it would seem that this Department or the Attorney General might sue to enjoin such activities if they materially impair the exercise of the public easement of navigation in navigable streams or other public rights in meandered or navigable lakes or ponds. See Easement of Navigation, p. 65. ILL. REV. STAT., c. 19, § 56, authorizes the Department to receive complaints regarding, and to take such action thereon as may be required to prevent, wrongful interferences with public navigation. Chapter 19, § 60, cited by the Attorney General, authorizes the Department to take action against encroachments upon public waters by private interests or individuals. Chapter 19, § 70 provides that the Department shall seek action, by injunction or otherwise, to prevent the impairment of the carrying capacity of streams. It may be noted that the United States Supreme Court, in a case involving Lake Michigan, said that a certain withdrawal of water from the lake through an artificial channel constituted an "obstruction to the navigable capacity" of navigable waters of the United States within the meaning of an Act of Congress that requires a permit from the United States Army in such cases. Sanitary Dist. of Chicago v. United States, 266 U.S. 405, 429 (1924), construing 30 STAT. 1121, 1151. See 33 U.S.C.A., 403. See Federal Matters, p. 230, regarding federal jurisdiction.

It also may be noted that in 1949 the Illinois Attorney General expressed the opinion that § 65 does not authorize the Department to issue a permit to anchor a boat, barge, or raft onshore or offshore of a navigable or non-navigable stream or lake, but that if this occurs on any public water and interferes with navigation a remedy is provided by law, citing ILL. REV. STAT., c. 19, § 47a (1947), and Revell v. People, 177 Ill. 468 (1899) (OPS. ATT'Y GEN. 1949, p. 173).

Department determines that issuance of such permit will be in the public interest. In this connection it is difficult to see wherein any riparian rights of lower riparian owners will be adversely affected by diverting water from the river for the use of this one plant . . ." The river involved was the Mississippi.[67]

The Attorney General indicated in a 1954 opinion that at least a collapsible dam may be permitted in public waters if it is in the public interest. He said that a "weir" is a kind of dam, in construing the meaning of the statutory language regarding the building of any "wharf . . . weir" and certain other specified structures, or "any other structure," or the doing "of any work of any kind whatsoever," in public waters.[68] It also may be noted that another section of the act specifically authorizes the Department to require the installation of fishways in dams and the proper maintenance and modification of existing dams to attain the proper control of water levels in the disposal of floodwaters and at normal stages.[69]

In the latter instance, the Attorney General's opinion had been requested by the Department regarding the issuance of a permit to build a collapsible dam across the outlet of a meandered lake. He expressed the opinion that the act authorizes the issuance of a permit for such a dam if it is in the public interest. He noted that the applicant proposed "to construct a small craft pull-over and a rip-rap spillway and fishway in connection with this dam."[70] He said that the Department should not issue the permit if it determined that the dam's construction would impair the public rights of fishing and boating in the lake, but that if it improved such rights it would be in the public interest. He added that the permit should not be issued unless the Department was satisfied that the dam would not cause the lake to overflow private property not previously overflowed or otherwise damage private property.[71] He also stated that such permit should relate only to land owned by the state (the bed of the lake) and

[67] Ops. Att'y Gen. 1956, at 53. See Federal Matters, p. 230, for discussion of Federal jurisdiction. The Attorney General added that he had not been advised whether the channel involved was located in or adjoining any municipality. Recall the statutory requirement regarding municipal consent.

[68] Letter opinion addressed to E. A. Rosenstone, dated March 26, 1954, construing Ill. Rev. Stat., c. 19, § 65.

[69] *Id.* § 70. Fishways may be required wherever deemed necessary, as recommended by the Department of Conservation.

[70] See also, letter opinion addressed to E. A. Rosenstone dated April 7, 1954, in which he indicated that a dam that would prevent the public from having access to a public meandered lake from a navigable river would impair public rights.

[71] See also, letter opinion dated April 7, 1954, *supra.* But this ignores the possibility of the permittee's paying for and obtaining permission to flood such private lands. The applicant for a permit involved in the March 26 opinion, note 68 *supra,* was a lake-improvement association and, in the April 7 opinion, a "community council." (It also may be noted that a state agency or some other public agency might have condemnation powers that could be exercised in this regard.)

A later opinion (Ops. Att'y Gen. 1959, at p. 165) concerned the effect of the lake (involved in the April 7, 1954 opinion) being partly within a school section 16. The opinion was that the part of the lake within such section was not within the Department's jurisdiction as noted above on p. 118.

that the applicant must procure necessary rights from riparian owners if any part of the dam would be constructed on private property. He also suggested that the applicant obtain permission to construct any such dam from proper federal authorities.

The Attorney General also recommended that any permit to build the dam on the lake bed owned by the state should be in the form of a license revocable at will, rather than a lease, noting that the Illinois Constitution prohibited the lease of any waterway owned by the state unless a statewide referendum is held.[72] However, this constitutional provision was amended later the same year (1954) so as to permit the sale or lease of any State-owned canal or waterway upon such terms as may be prescribed by law.[73]

The Attorney General has expressed the opinion that the Department is not authorized to issue a permit to make a fill in a navigable stream bed, except with reference to slips (as discussed earlier) or to establish a uniform shoreline.[74]

In a case involving failure of a drainage district to obtain a permit for carrying out certain drainage works on 6,881 acres,[75] consisting mainly of lakes and submerged lands connected with the main channel of the Illinois River, the supreme court held that the power conferred on the Department to ascertain the effect on public waters of the carrying out of such works and to prohibit adverse effects was not a violation of the Constitution.[76] The court also indicated that the authorized method of such regulation was not invalid. It noted that proceedings to secure the Department's approval of such action were subject to the general requirement in the statute that: "All orders entered by the Department of Public Works and Buildings shall be made only upon giving due, reasonable notice to persons to be affected thereby; or having any interest in the subject matter of such inquiry and after a hearing in relation thereto."[77]

Regulatory activities of the Department under the act in recent years will now be considered.[78]

During 1962 some 401 applications for permission to construct works

[72] Citing ILL. CONST., separate § 3. (Letter opinion addressed to E. A. Rosenstone, note 68 *supra.*)

[73] The purposes of this amendment included the removal of this constitutional restriction on the sale or lease of the Illinois and Michigan Canal. See ILL. LAWS, 1954, at p. 1924. Other restrictions removed by this amendment included a provision that the state could not lend its credit or make appropriations in aid of canals. The amendment states that "The General Assembly may appropriate for the operation and maintenance of canals and waterways owned by the State."

[74] OPS. ATT'Y GEN. 1957, at 24. He further said that a fill to establish a uniform shoreline should be placed inside a wall or breakwater, and no permit should be issued therefor unless it is determined that navigation and the floodwater carrying capacity of the stream will not be impaired.

[75] The case involved ILL. REV. STAT., c. 19, § 78, discussed above.

[76] Duck Island Hunting and Fishing Club v. Gillen Co., *supra,* 330 Ill. 121, 135.

[77] See ILL. REV. STAT., c. 19, § 74.

[78] Much of the discussion of the Department's activities is based on information from T. B. Casey, formerly Chief Waterway Engineer, and J. A. Todson, Chief of Operations, of the Department's Division of Waterways. J. C. Guillou recently succeeded Mr. Casey as chief engineer.

affecting the public waters of the state were processed and permits issued. This included 217 formal and 184 informal or letter permits. From 1957 to 1962, the Department's Division of Waterways issued formal permits as follows:[79]

	1957	*1958*	*1959*	*1960*	*1961*	*1962*
Dams	4	7				
Recreation and water supply			6	7	8	12
Temporary construction			4	3	3	3
Temporary cofferdams and roadways	9					
Water intakes		6	3	7	4	3
Outfalls and intakes	34					
Outfalls — storm water and sanitary			27	15	7	9
Bridges — construction and repair	35	25	36*	41*	26*	20*
Wire crossings — aerial and submarine	16	11	27	22	22	23
Pipeline crossings — gas, oil, water, etc.	39	44	82	145	27*	32*
Channel changes and improvements	12	8	19	8	4	3
Small boat harbors and launching facilities	15		10	18	14	7
Harbor facilities		6				
Docks	19	26	22	7	8	15
Piers	11	13	7	8	2	18
Pile clusters	7	3				
Cells and pile clusters			9	8	7	9
Uniform shoreline fills		4				
Fills	4		4	5	8	9
Shore protection units			7	17	21	14
Headwalls — storm and sanitary		28				
Headwalls				10	14	9
Bulkheads and retaining walls	18	10				
Levees	1	4	3	5	5	4
Jetties and breakwaters	2		4	4	6	3
Disposal of material in Lake Michigan	12	14	13	5	7	5
Commercial dredging				9	10	7
Culverts						8
Miscellaneous	5	11	3		5	4

* The Division also issued 125, 76, 94, and 90 informal permits for repair or construction of bridges from 1959 to 1962, and 74 and 94 informal or letter permits for pipeline crossing during 1961 and 1962.

Fifty-one permits in 1957, an unreported number in 1958, and 48 in 1959 were extended for an additional period to allow the permittees time for completion of their projects. The 1960 to 1962 annual reports do not include such data. Permits have provided that they shall expire if the work permitted is not completed within a certain period — normally 3 years. The permits issued also have included the provision that:

Starting work on the construction hereby authorized shall be considered full acceptance by the Permittee of all the terms and conditions of this permit; however, the attached acceptance, properly executed by the Permittee, must be filed in the office of the Department of Public Works and Buildings, Division of Waterways, Springfield, Illinois, within sixty (60) days of the date hereof or this permit shall be null and void.[80]

[79] From 1957, 1958, and 1959 ANNUAL REPORTS, Dept. of Public Works and Buildings, Div. of Waterways, pp. 11-12, and 1960, 1961, and 1962 annual reports, pp. 3-4.

[80] The Attorney General has expressed the opinion that ILL. REV. STAT., c. 19, § 65

A standard form has been used in issuing formal permits.[81] In addition, permission to perform certain work is sometimes included in a letter.

Formal permits issued by the Department have included a number of express disclaimers. They have provided that:

This permit does not in any way release the Permittee from any liability for damage to persons or property caused by or resulting from the work covered by this permit, and does not sanction any injury to private property or invasion of private rights, or infringement of any Federal, State, or local laws or regulations. . . .

In a case decided in 1930, the supreme court held that a permit to build a dam in the outlet of a lake did not bar a suit to enjoin construction of the dam as interfering with the drainage of surrounding farm land, where the permit expressly included a disclaimer identical to the above quotation.[82]

In this connection, it may be noted that all applicants have been required to include in their applications certain express representations, including that the completed project or its use will not pollute "or otherwise interfere with the natural use of the waters of said stream, lake or pond, except as herein provided" and will "not flood or damage adjoining property either above or below its location." The applicant's permit may be revoked for making false representations.[83]

Permits also have included the following disclaimers:

This permit does not convey or recognize any title of the Permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the proposed project or any part thereof will be located, or otherwise grant to the Permittee any right or interest in or to said property whether said property is owned or possessed by the State of Illinois or by any private or public party or parties . . .

In issuing this permit, the Department of Public Works and Buildings shall not be considered as approving the adequacy of the design or structural strength of the proposed structure or improvement.

The permits have further provided that if the permittee is required to obtain a permit from any federal authority to perform the work authorized by the permit, such permit shall be obtained before the Department's permit becomes effective, and also that:

If future operations for public navigation by the State or Federal Govern-

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authorizes the Department in a proper case to issue a permit for work in a public stream where such work was commenced prior to issuance of the permit, rather than take action to abate the work. Ops. Att'y Gen. 1957, at 179.

[81] See Appendix E.

[82] Druce v. Blanchard, 338 Ill. 211 (1930).

[83] Permits have provided that:

"The Department of Public Works and Buildings in issuing this permit has relied upon the statements and representations made by the Permittee in his application therefor, and in case any statement or representation in said application is found to be false, this permit may be revoked at the option of the Department of Public Works and Buildings, and when so revoked all rights of the Permittee hereunder shall thereupon and thereby become null and void."

ment or public interests of any character necessitate any changes in the position of any part of the structure or structures herein authorized, such changes shall be made by and at the expense of the Permittee or his successors . . .

If the project authorized herein is located in or along a lake, the Permittee or his successors shall make no claim whatsoever to any right, title or interest in and to any accretions caused by the construction of said project, and by the acceptance of this permit agrees to remise, convey, release, and quit-claim unto the People of the State of Illinois, for the use and benefit of the public, all rights to any accretions which may accrue to said real estate because of said project.[84]

The Department has issued permits for the construction of dams located in navigable streams, and in non-navigable streams where such dams were considered by the Department to have a potential effect on the navigation or other public use of a navigable stream or navigable or meandered lake into which such a stream discharges. Applications to build dams, whether in navigable or non-navigable streams, have been refused only if they were objectionable from the standpoint of public interest or right of navigation. If a dam is permitted by federal authorities to be constructed in a stream used for commercial navigation, navigation locks would be required. Permits issued by the Department have not included any specific provisions regarding the withdrawal or use of the impounded water, nor has any attempt been made to enforce the maintenance of any minimum water levels behind dams.

Few permits have been issued under the specific statutory authority, discussed earlier, to permit nonriparians to use water for industrial, manufacturing, and public-utility purposes.[85]

The Department informs all applicants of the statutory provision that it is unlawful to erect any structures or do any work in public waters without first "submitting the plans, profiles, and specifications therefor, and such other data and information as may be required" to the Department, and receiving a permit therefor.[86] Applicants are instructed to give the name of the stream, lake, or body of water affected, and the location and description of the proposed project, together with a description of the property on which the project is to be constructed, including the applicant's rights therein, its present occupancy, and the names of parties having or claiming title or other rights to the property, and the names and addresses of the owners of adjacent property. The applicant is instructed to submit plans and specifications for the project, including adequate and complete details that locate the work with sufficient survey ties so it can be found easily, and giving high, low, and mean water-elevations of the body of water affected, and including adequate profiles, elevations, cross sections and other data.[87]

Each permit application is checked for completeness and accuracy, and

[84] See Appendix E.

[85] The standard permit form included in Appendix E has been used for this as well as other purposes.

[86] Citing Ill. Rev. Stat., c. 19, §§ 65 and 65a.

[87] See Appendix E.

a field investigation is made by one or more engineers. Public notice of the application is usually given. A public hearing has sometimes been held when considered desirable.[88]

The 1959 Annual Report of the Department's Division of Waterways states:[89]

> When jurisdiction is also exercised by local, other State or Federal agencies, close contact is maintained by this office with said agencies, to learn their attitude and policies upon such matters in determining the appropriate course of action under established procedures.

When the structure or other work authorized by a permit has been completed within the time allowed and in accordance with its terms, the permit continues in effect indefinitely, subject to any change in the applicable laws. However, if a structure is improperly maintained and thereby interferes with navigation or other public interests, the Department has indicated that it may take appropriate corrective action.

Relatively little field investigation has been carried on by the Division of Waterways to determine whether permits are being obtained where required. Such an investigation is usually made only if someone complains of certain activity.

The 1959 Annual Report of the Department's Division of Waterways states:[90]

> This Division is also responsible for the investigation of all complaints as to alleged encroachments, abuses or misuses of public waters and numerous complaints are processed each year. Some, due to the nature thereof, fall within the jurisdiction of an agency other than the Division of Waterways and the parties are so advised, while other cases require exhaustive investigation to obtain information relating to the facts and circumstances which must be reviewed to determine whether public interest is involved. Often times it is necessary to make a land survey of the area in question before arriving at a final decision. If federal, local or other State agencies appear to be involved, the findings of the Division may be referred to the agencies involved for review and comment prior to making a final determination or taking corrective steps as provided by law.

Dumping or filling in streams is the most prevalent type of complaint. The Department has never taken formal legal action against anyone but has relied on discussion and persuasion to effect voluntary accommodations of disputes.

The 1959 Annual Report of the Department's Division of Waterways also states:[91]

> The Chicago Office processes applications for permits, investigates complaints and encroachments and arranges for the holding of public hearings in connection therewith. . . .
>
> It is the responsibility and duty of the Springfield and Carbondale District

[88] With notice thereof given as provided in ILL. REV. STAT., c. 19, § 74, quoted earlier.

[89] At p. 11.

[90] See pp. 12-13.

[91] At p. 10.

Offices and the Rock Island Area Office to investigate complaints and encroachments involving the public waters, to field check applications for permits affecting the public waters and to report thereon to the Division of Waterways at the Springfield Office. These offices are also required, upon issuance of a permit by the Department of Public Works and Buildlings, to check the work being accomplished to determine whether the permittee is performing the proposed work in accordance with the terms and conditions set forth in the permit.

Application forms for securing permits are available at the Department's Springfield headquarters, and in its Chicago, Rock Island, and Carbondale offices.[92]

Boat Registration and Safety Act. In 1959 the legislature enacted a Boat Registration and Safety Act, which includes requirements regarding the registration of motorboats, and specifies various rules of law and requirements applicable to the operation of motorboats and other watercraft, and authorizes the State Department of Conservation to make special rules and regulations, with certain exceptions.[93]

As amended in 1961, the Act provides that the Department of Conservation:

> . . . shall, for the purposes of this Act, have full and complete jurisdiction of all waters within the boundaries of the State of Illinois, subject only to the paramount authority of the Federal Government with reference to the navigation of such stream or streams and further subject to such powers as may be granted to political subdivisions of the State.[94]

The Department's jurisdiction over "all waters within the boundaries of the State" apparently includes both navigable and non-navigable, public and private, waters.[95]

Boating rules include traffic and water-skiing rules, rules regarding boating equipment and specifications, and physical and mental requirements of operators. Among other traffic rules, motorboats shall not (except in emergencies) be operated in areas legally designated and clearly marked as restricted areas for swimming, fishing, or for other purposes by the Department, political subdivisions, or owners or lessees of property in accordance with their rights to use such property. The Department or political subdivision is required to give public notice and hold a public hearing before designating a restricted area, and all final administrative decisions are subject to judicial review under the Administrative Review Act.

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[92] See Appendix E.

[93] ILL. REV. STAT., c. 95½, § 311-1, *et seq.*

[94] See Coast Guard, p. 243, regarding the coordination of this act with applicable federal laws and regulations.

[95] In 1960 the Attorney General expressed the opinion that the Department had such jurisdiction under the 1959 act, noting that § 2 of the act defines "waters of this State" to mean "any water within the jurisdiction of this State," and was of the opinion that the act was applicable to "the members and vessels of a private group while operating in private waters." ILL. OPS. ATT'Y GEN. 1960, at 108. The 1961 amendments of this act, by deleting the words "every public body of water" in § 3, appear to make it more clear that the act purports to cover all such waters, not just public or navigable waters.

The Department may make special rules and regulations regarding waters within any subdivision. Any subdivision, after public notice, may request the Department to adopt special rules with respect to its waters.

This act does not prevent the adoption of local ordinances or laws by political subdivisions regarding the operation and equipment of vessels, provided such ordinances or laws are not inconsistent with its provisions or regulations issued under it. It specifies that employees of the Department of Conservation, and all sheriffs, constables, and police officers have the duty to arrest persons who violate its provisions.

Boat-registration fees, fines, and related income under the Act are placed in a special fund (the State Boating Act Fund) to be used by the Department of Conservation for defraying costs of enforcement, promoting boating safety, and constructing and improving launching, docking, or mooring facilities for pleasure craft and related purposes.[96]

PERCOLATING GROUNDWATER

The court has had little occasion to clarify the law of percolating groundwater use. In *Edwards v. Haeger*[1] the court spoke of "percolating water."[2] This was defined as "water which is the result of natural and ordinary percolation through the soil."[3] The court added that "he [the owner of land] may intercept or impede such underground percolations."[4] The court seemed to define this class of water as waters that are percolating through the ground, and water supplies that have been collected by some device from such percolating waters. This apparently would be true whether the collecting device is a well or some other excavation that collects the water.[5]

In the *Edwards* case the court stated the rule of absolute ownership as applying to percolating waters. The court said:

> Water which is the result of natural and ordinary percolation through the soil is part of the land itself and belongs absolutely to the owner of the land, and, in the absence of any grant, he may intercept or impede such underground percolations, though the result be to interfere with the source of the supply of springs or wells on adjoining premises.

The court did not refer to any other alternative rule that might be adaptable to Illinois. It said with regard to the above quoted statement:

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[96] There is a fee of $3 for registering motorboats with the Department as required. Also, persons engaged in boat rental services must obtain licenses, and operators of boat liveries are made responsible for determining that all boats permitted to be operated as motorboats are properly registered.

[1] 180 Ill. 99, 54 N.E. 176 (1899).

[2] *Id.* at 178.

[3] *Id.* at 177.

[4] *Ibid.*

[5] *Id.* at 178. The court was speaking of the right of the grantor of a right to take spring or well water to interfere with the supply thereto by collecting percolating water at a different place. Regarding the mingling of underground waters and waters of a surface watercourse, see Natural Watercourses (as distinguished from percolating ground water), p. 12.

Upon this proposition there is, so far as we are advised, no dissension in the decisions of courts or in the writers of text books. Nor does appellee contend any different rule prevails, in the absence of a grant creating a right to percolating water in another than the owner of the soil.[6]

It should be noted that the statement of the general rule of absolute ownership of percolating water was not necessary to the decision in the case, particularly in view of the last sentence of the above quotation. It might, therefore, be regarded as dictum by a later court.[7] The decision did no more than hold that particular words in a deed did not convey the exclusive right to use the percolating water within certain land. The deed conveyed a mill, its appurtenances, and a strip of ground on each side of the water conductors in certain lots not conveyed by the deed. The clause under scrutiny reads as follows:

As also, the right of way and entry through and upon the lands of the said Deweese at any time for the purpose of repairing and improving either branch of the mill race which carries the water to the said mill, the said Green doing as little damage as the circumstances will permit; as, also, the right to cut a ditch or ditches on any part of the now wet land of the said Deweese at any time, for the purpose of conveying the water to either branch of the race aforesaid.[8]

The court simply held that "it is unreasonable to believe the original parties to the grant intended that the easement should extend to water percolating or seeping through the high and dry portions of the premises."[9] It felt that such an intention would result in converting almost the entire tract of land to the use of the mill and would, as a result, destroy the usefulness thereof for other purposes.[10] It held that the owner of the mill should be at least temporarily enjoined from interfering with the landowner's use of water from a well he had sunk on the land.[11]

It is open to speculation whether the court would allow a landowner to sell percolating water for use on another's land. In discussing the extent of the grant in the deed in the *Edwards* case, the court indicated that it might take a restrictive view of a grant conveying away all rights to underlying percolating water, especially if such grant wholly deprived the overlying landowner of percolating water-use rights. The court said:

The nature and tendency of such a burden upon land [a grant conveying away *all rights* to underlying percolating water] is so far opposed to the public good as that a grant should not be construed to create it unless language is employed which will not admit, reasonably, of any other construction.[12]

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[6] *Id.* at 177.

[7] Dicta are incidental statements made by the court that are not necessary to the decision and are not generally considered to carry the same weight as precedent as a direct holding of the court.

[8] Edwards v. Haeger, 180 Ill. 99, 54 N.E. 176 (1899), at 176.

[9] *Id.* at 178.

[10] *Ibid.*

[11] The mill owner was attempting to prevent the landowner from laying pipes from the well to his dairy barn and other buildings.

[12] *Id.* at 178. (Emphasis added.)

However, the court apparently was not thinking in terms of whether such a practice would interfere with the use of percolating water of *neighboring* landowners.

The court expressly stated that it was not deciding what effect one's motive might have upon a right to use percolating water. The court said:

> The question of the effect of the motive prompting the interference with the source of supply of water by collecting percolating water, which has been the subject of conflicting decisions in the courts of different states, does not arise in this investigation. . . .

The fact that the court felt constrained to mention this point may indicate that it would qualify the rule of absolute ownership to the extent necessary to prohibit a malicious interference by use.[13]

In a recent case, an Illinois appellate court said that "The Illinois rule on percolating water seems to rest on *Edwards v. Haeger* . . ." but it suggested that the last of the foregoing quotations from that case "may carry the implication that, in a proper case, our Illinois Supreme Court might announce a doctrine of reasonable use in relation to the needs of adjoining owners."[14]

Although the language of the *Edwards* case definitely lends support to the possibility that injurious malicious conduct may not be tolerated, as noted above, it appears not to lend much support to the latter suggested possibility. It also should be noted, if such a reasonable-use rule were followed, it might more severely limit such rights of use than do a number of the statements or applications of the reasonable-use rule by courts in other states, and it would more nearly accord with what some courts have termed the doctrine of "correlative rights."

One version of the so-called American rule of reasonable use, which apparently is followed in a number of states, prohibits malicious or negligent conduct, deliberate waste of water, or pollution that injures one's neighbors, at least if it is found to be unreasonable. Aside from such limitations, it limits a landowner's use of percolating groundwater to beneficial purposes having some reasonable relationship to the use of his overlying land (although largely or entirely *without considering his neighbors' needs and supply*), and prohibits its sale or use on distant lands if this materially interferes with similar uses by his neighbors on their overlying lands. Courts in some states follow a rule that is variously called "correlative rights" or "reasonable use." This is similar with respect to the sale or use of water on distant lands, but it requires the use of groundwater on one's own overlying land to be reasonable in relation to the rights and needs of neighboring owners.[15]

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[13] Few courts in the United States have ever held contra. *But see* Huber v. Merkel, 117 Wis. 355 (1903); 55 A.L.R. 1395.

[14] Behrens v. Scharringhausen, 22 Ill. App. 2d. 326 (1959).

[15] This rule has particularly been applied in some states as between the owners of lands that overlie a common basin. See 93 C. J. S. 771-773, 55 A.L.R. 1388; 109 A.L.R. 397. The Illinois court in the instant case, 161 N.E. 2d. 46, first tended to describe the first type of reasonable-use rule but wound up with a "correlative rights" type. Compare 231 Ala. 511, 518 (1936) and 228 Ark. 76, 80-82 (1957).

In the recent Illinois case, farmland owners had sued to enjoin the pumping of water, conceded to be percolating groundwater, from a gravel pit on adjacent land. They claimed such removal, which was done to facilitate gravel-removal operations, was depleting their water supply below and upon their farms,[16] which was needed for their livestock, crops, and personal daily requirements. The requested injunction was denied by the court. It said that the plaintiffs had not established that they would be *irreparably injured,* since they had been able to obtain adequate well water by deepening their wells and installing larger pumps.[17] It said it would reach the same conclusion both under the "English rule" and the American rule of "reasonable use," so it was not necessary to decide which rule prevails in Illinois.

In one old case, mentioned earlier, the supreme court indicated that the right of a landowner to use percolating water for any purposes he desires is not altogether unqualified in another respect.[18] There the plaintiff owned a lot adjoining that of the defendant. The defendant was enjoined from erecting a privy on his own lot but within 20 feet of the plaintiff's well from which he obtained his drinking water and water for other household purposes.

The court based its reasoning in part on the feeling that the defendant could not make uses of his own underground water (use it to carry away wastes) that would make the plaintiff's percolating water unfit for use. The court did not expressly speak about percolating-water-use rights, but instead based its holding on the theory that a nuisance had been created by the resulting water pollution. However, this case indicates that the courts may be willing to restrict a landowner's absolute right to use his percolating water, at least if such use would constitute a nuisance.[19]

Problems involved in pollution of groundwater supplies are similar to those involved in pollution problems in general. The state's Sanitary Water Board and Mining Board have jurisdiction over percolating water sources to the same extent as over other water sources.[20] In addition, a statute declares it to be a public nuisance to throw or deposit any offensive matter in any watercourse, lake, pond, spring, or well, or to corrupt the

[16] But only the question of possible liability for impairing their groundwater, not surface water, supply appears to have been expressly considered by the court.

[17] The reported decision does not show how much deeper the wells were dug, or at what cost. It says the master in chancery in the lower court had concluded that the plaintiffs failed to prove monetary damages. But the well deepening, etc. must have cost something. For a similar question raised in an Illinois trial court case in interpreting the meaning of a contractual agreement, see Trial Court Activity, p. 228.

Some other contractual agreements regarding groundwater are cited in J. Cribbett, Illinois Water Rights Law and What Should Be Done About It, Ill. State Chamber of Commerce (1958) pp. 34-35.

[18] Wahle v. Reinbach, 76 Ill. 322 (1875).

[19] Later Illinois decisions regarding the pollution of groundwater which appear to be in general accord with this view include Iliff v. School Directors, 45 Ill. App. 418 (1892); Belvidere Gaslight and Fuel Co. v. Jackson, 81 Ill. App. 424 (1898) (pollution from gas plant); Phoenix v. Graham, 349 Ill. App. 326 (1953) (discharge of salt water).

[20] See later discussion of the powers and duties of these boards, p. 149.

water of any spring, or to permit any wastes from oil and gas drilling to escape into underground fresh-water supplies.[21]

A log of all wells that are drilled must be filed with the State Geological Survey Division (of the Department of Registration and Education) at Urbana, Illinois, to provide information on capacity of well, thickness of water-bearing strata, and other details. Furthermore, permits must be obtained from the State Mining Board (in the Department of Mines and Minerals) at Springfield before drilling a water well that penetrates the subsurface below the glacial drift.[22] The permit shall be issued when the Board is satisfied that the applicant has complied with all of the applicable provisions of the Oil and Gas Conservation Act.[23]

In practice, permits for water wells are issued by the Director of the Department of Mines and Minerals, who also is a member of the State Mining Board,[24] and are forwarded to the applicant through the State Geological Survey. Each permit includes the instruction that a driller's log should be furnished to the State Geological Survey in compliance with the Illinois statutes.[25] Permits for wells are issued as a matter of course and without investigating the applicant's site, since the purpose of issuing permits is to apprise applicants of statutory requirements for furnishing drillers' logs and, in some cases, drill cuttings, to furnish data for locating mineral deposits and for other purposes. There has been no attempt to enforce compliance with the statutory requirements regarding water wells.[26] Most permits for water wells have been issued to those concerned with the drilling of large municipal and industrial wells. Relatively few have been requested by or issued to farmers.

The legislature in 1959 passed an act requiring water-well contractors annually to secure a license to drill or otherwise construct water wells, from the Board of Water Well Driller Examiners in the Department of Registration and Education. But the Act does not apply to an individual who constructs a water well on land he owns or leases and uses for farming purposes or as his place of residence, nor to one who performs labor or services under the direction of a licensed contractor.[27]

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[21] ILL. REV. STAT., c. 100½, §§ 26, 29. Offenders are subject to criminal prosecution and, if they are convicted, the nuisance may be abated.

[22] *Id.* c. 104, §§ 34, 63.

The usual depth of the glacial drift in Illinois ranges from a few feet to more than 500 feet. It exceeds 100 feet in much of northeastern Illinois. (Based on information supplied by the State Geological Survey Division.)

[23] *Id.* §§ 62 to 88. See § 67a. This act includes, among other things, provisions regarding the plugging of barren or abandoned wells. See especially §§ 63, 67, and 80.

[24] *Id.* c. 127, § 5.04.

[25] *Id.* c. 104, §§ 34 to 37.

The forms used for applications and permits are included in Appendix F.

[26] See ILL. REV. STAT., c. 104, §§ 72, 87, for penalties and injunctive powers.

[27] *Id.* c. 111½, § 116.76 *et seq.* Licenses may be refused or revoked, among other reasons, for incompetence or willful disregard of applicable rules or regulations of any state law relating to water wells. Applicants shall be tested on their knowledge and skills, including the proper sealing of abandoned wells and on their knowledge of regulations promulgated by the state Department of Public Health under the Public Water Supply Control Law.

The preamble of the Act states that, in view of the increasing shortage of water supply, it is imperative that means be provided for developing natural underground waters in an orderly, sanitary and reasonable manner, and it is essential that contractors who drill water wells shall procure, and provide to the state, information necessary for the development of proper groundwater resources. The body of the Act does not expressly require that contractors obtain or provide such information. But earlier legislation, discussed above, requires that certain information be supplied to the state.

SUBTERRANEAN WATERCOURSES

The court has not had occasion to pass directly on questions regarding subterranean watercourses. However, in *Edwards v. Haeger,* the defendant contended that water from a subterranean watercourse was involved. Quoting from that opinion:

> The position of counsel for appellee as to the issues of fact is that the water which came into the new well was not percolating water, but water which flowed there from a subterranean watercourse; that in order to divert the water from such watercourse into the well, a trench was dug from the well, underneath the said watercourse, and loose-jointed tile placed in the trench to conduct the water flowing in such watercourses into the well; that the watercourse was not visible on the surface where the well was excavated, but that it had a channel, and came to the surface in a depression between two knolls or ridges below the well, and there united with other waters, and from thence flowed into the low, wet land, and constituted water which appellee had the right to take, by means of ditches, into the mill race.[1]

The court apparently concluded, after examining affidavits in the case, that the facts presented were not as appellee contended, and that the subsurface water should be treated as percolating water.[2] The fact that the court felt constrained to discuss the matter and negate the contention that a subterranean watercourse was involved may indicate that it would have applied a different rule to subterranean watercourses from that applied to percolating water.

In other states where the question has been presented to the courts, rights to use water from subterranean watercourses usually have been held to be governed by the same general rules that apply to surface watercourses.[3] However, these courts usually state that it is presumed that all waters below the surface of the ground are percolating waters instead of being in a subterranean watercourse. To be classified as subterreanean, the water must be shown to flow in a well-defined channel. A watercourse that goes underground and is shown to emerge a short distance away may be subject to the same rules along its entire course.[4]

[1] 54 N.E. 176 (1899), at 178.

[2] *Id.* at 178, 179; but the court returned the case to the lower court for a full hearing on the merits of this point and other contentions.

[3] 56 AM. JUR., *Waters,* § 103; 55 A.L.R. 1487 (1928); 109 A.L.R. 415 (1937).

[4] See ANGELL, WATERCOURSES (7th ed.) § 4.

SPRINGS

Springs of water are a prevalent source of supply in many areas of the state. However, the court has not had occasion to directly decide what rules of use apply to spring water.

In *Edwards v. Haeger,* the court spoke of the right of a landowner to intercept or impede percolating waters even though this interferes "with the source of supply of springs or wells on adjoining premises."[1] The court also stated that the privilege of taking water from a spring, under the reservation in a deed, confers no right to a continued flow free from interference by the landowner who might take water from the same percolating waters from which the spring derived its supply. This might be done, said the court, by wells or "other excavations" (which might conceivably include excavations deriving their water supply from springs).[2]

This discussion may indicate that the court would apply the same rules of use to spring water that apply to the source from which the spring derives its flow. By this approach, if the flow is derived from percolating water, the spring water would be treated as such, and if it is derived from a subterranean watercourse, the rules of use applied to that source would be used. However, the earlier case of *Evans v. Merriweather,*[3] contains some statements that appear to qualify the language of the court in the *Edwards* case.[4] In the *Evans* case the court stated:

> . . . that an individual owning a spring on his land, from which water flows in a current through his neighbor's land, would have the right to use the whole of it, if necessary to satisfy his natural wants. He may consume all the water for his domestic purposes, including water for his stock. If he desires to use it for irrigation or manufactures, and there be a lower proprietor to whom its use is essential to supply his natural wants, or for his stock, he must use the water so as to leave enough for such lower proprietor.[5]

The court's statement[6] that "a watercourse begins *'ex jure naturae,'*[7] and having taken a certain course naturally, cannot be diverted," has similar import.

This language would indicate that, even though the flow of a spring is derived from percolating water, if the result of the flow is to establish a stream large enough to supply the natural wants[8] of the landowner on whose land the spring is located, and to leave enough water to naturally flow onto the land of the next owner, the spring water must be treated as water in a natural watercourse.[9] In the context in which the court was speaking, however, it would seem that this rule would be restricted to the

[1] Edwards v. Haeger, *supra* at 177.
[2] *Id.* at 178.
[3] 4 Ill. 492 (1842).
[4] Edwards v. Haeger, *supra.*
[5] *Id.* at 496.
[6] *Id.* at 494.
[7] That is, from or by natural right.
[8] Defined and discussed in the section on Natural Uses, p. 27.
[9] Defined and discussed in the section on definition of natural watercourses, p. 9.

situation where the spring flow had flowed across the lands involved, to such an extent that a natural watercourse existed. Thus it seems questionable that the court would require a landowner who improved and developed a spring on his own land to treat the water as water in a natural watercourse, and allow it to flow from his property where a natural watercourse had not previously existed.[10] It also seems that he would not, in such a case, be required to allow the water to flow into a natural watercourse if it had not previously derived part of its flow from the spring water.

In other words, if water from a spring did not immediately form a natural watercourse in a state of nature, or did not contribute substantially to the flow of a natural watercourse in the immediate area, but instead flowed vagrantly and intermittently from the spring opening, the water would be treated the same as its supply source if collected at the spring head. If its vagrant flow was unchecked at the spring head, and such flow continued in a vagrant manner, the rules relating to diffused surface waters would probably be applicable until the water naturally flowed into a natural watercourse.[11]

It should be noted that the language in the *Evans* and *Edwards* cases is no more than dictum and, at best, only serves to indicate the attitude of the court in the past. The above statements indicate the law in these areas only to the extent that the attitudes of the earlier court may influence the decisions of the present-day court. However, they seem generally to be consistent with the trend of decisions or statements by most other eastern courts.[12]

SURFACE WATER

The preceding discussion has classified certain water-supply sources as natural watercourses (surface and subterranean) and as percolating water. The Illinois courts have designated all other natural waters found on the ground as "surface water,"[1] or as "mere surface water."[2] Courts in some other states have referred to such water as "diffused surface water,"[3] or "surface drainage water."[4]

It seems that, so long as water on the ground surface is not within a natural watercourse, it ordinarily will be treated as surface water. The

[10] At least not until the prescriptive period had elapsed, on the theory of negative reciprocal easements. See Developed or Added Waters, p. 52, for an explanation of this terminology.

[11] See the discussion below regarding surface water.

[12] See 55 A.L.R. 1501 (1928); 109 A.L.R. 416 (1937); 56 Am. Jur., *Waters*, § 133.

[1] Peck v. Herrington, 109 Ill. 611, 612 (1884); Wellor v. Piligrim, 3 Ill. App. 476 (1878).

[2] Eimers v. C.C.C. and St. L. Ry. Co., 158 Ill. App. 557 (1910).

[3] County of Scotts Bluff v. Hartwig, 160 Neb. 823, 826, 71 N.W. 2d. 507 (1955). See generally 56 Am.Jur., *Waters*, § 65.

[4] See, *e.g.*, Canal and Hydraulic Co. v. Fontaine, 72 Ohio App. 93 (1943).

Illinois court has indicated that "waters which have overflowed the banks of a stream in times of freshet, in consequence of the insufficiency of the natural channel to hold them and carry them off, are surface waters, within the meaning of the rules relative to such waters."[5] But the case involved rights of drainage rather than of water use, and the court expressly left undecided the question of large rivers.[6]

If rules of surface-water use are applicable, once water naturally leaves the watercourse as a result of overflow, there perhaps is no duty on the part of a landowner whose land receives overflow waters to allow that water to return to the watercourse as the water level subsides. In a number of states, however, overflow waters that naturally would return directly to the stream are considered a part of it and subject to riparian rights.[7]

The Illinois courts, and in fact, most of the courts that have dealt with surface-water problems, have been concerned primarily with surface-water drainage rights[8] instead of surface-water use rights, because, in the past, the important problem of those with surface water on their land has been how to "get rid" of it.[9] Today, however, surface-water use is of increasing importance.

The court has repeatedly said that it follows the rule of the civil law with regard to surface-water drainage. The court affirmed earlier cases in this respect in *Gormley v. Sanford,*[10] and stated that the civil-law rule was adopted because the court felt it rested "upon a sound basis of reason and authority."[11]

The Illinois court has not expressly indicated what rule of law it would follow with regard to the use of surface water. In the *Gormley* case[12] the court said:

> It is suggested in the argument that, if the owner of the superior heritage has a right to have his surface waters drain upon the inferior, it would follow that he must allow them so to drain and would have no right to use and exhaust them for his own benefit or drain them in a different direction. We do not perceive why this result should follow.

This language may indicate that the court would follow the statements of a number of other state courts to the effect that a landowner ordinarily may make use of surface water as he sees fit (although some courts have indicated they would impose certain reasonable or beneficial-use or other

[5] Pinkstaff v. Steffy, 216 Ill. 406, 413 (1905). See also Dickerson v. Goodrich, 190 Ill. App. 505, 508 (1914), and Shontz v. Metzger, 186 Ill. App. 436, 442 (1911).

[6] See Natural Watercourses (as distinguished from overflow water), p. 11, regarding this case and C., P. and St. L. Ry. Co. v. Reuter, 223 Ill. 387 (1906).

[7] See 56 Am. Jur., *Waters,* §§ 92 and 93. Riparian rights are discussed under Natural Watercourses, *supra.*

[8] Discussed later under Drainage, p. 139.

[9] Annual precipitation in Illinois exceeds annual consumption by 13 times. Unit Hydrographs in Illinois, Dept. of Public Works and Buildings (1948).

[10] 52 Ill. 158, 160 (1869).

[11] *Ibid.*

[12] Gormley v. Sanford, *supra* at 162.

limitations on such use). But there have been few direct holdings on such questions.[13]

The later case of *Edwards v. Haeger*[14] incidentally involved some aspects of surface-water use. In that case the landowner had conveyed by deed to the defendant's predecessor in title the right to cut ditches on wet, swampy portions of his land "for the purpose of conveying the water to either branch of . . . [a mill race leading to defendant's mill on a separate piece of property.]"[15]

The court held that this grant did not vest the defendant with the right to any water except that in the "wet land." The court also held that this grant did not include any percolating water. Since the water involved was not located in a natural watercourse, it apparently would be classified as surface water. Implicit in the decision is the court's sanction of the right of a landowner to grant to another the right to take surface water from his land for use on a separate tract. But the case did not involve the rights of any neighboring landowners who were not party or subject to the grant.

It would seem that, if no present right exists, no prescriptive right could arise on the part of a servient proprietor to insist that surface water flow to his land from the dominant heritage, because prescription can be effectuated only by the invasion of another person's right for the prescriptive period. When an upper owner allows his surface water to flow to the lower owner unchecked and the lower owner impounds and uses it, no right of the upper owner would be involved. The upper owner would merely have chosen not to exercise his paramount privilege to use the water.[16]

Artificial watercourses and reservoirs are discussed in a separate section. It should be noted here, however, that the problems there involved often are concerned with a choice of applying surface-water use rules or riparian-water use rules.[17]

DRAINAGE

Although drainage is not strictly a part of water-use law, it is necessary to consider the drainage law in order to fully understand certain aspects of water-use law. Drainage law is concerned with the extent of the right of one person to have water flow from his land without being obstructed, and the reciprocal extent of the duty of another person not to obstruct such water that flows onto his land. Following is a brief discussion of the more important refinements of drainage law.

[13] See 56 Am. Jur., *Waters*, § 66. Regarding civil-law rules with respect to such use, see Farnham, Water Rights (1904) vol. 3, § 883; W. Hutchins, Selected Problems in the Law of Water Rights in the West, U.S. Dept. Agr. Misc. Pub. 418 (1942), pp. 114-115.

[14] Discussed in detail under Percolating Groundwater, p. 130.

[15] Edwards v. Haeger, *supra* at 178.

[16] It also would seem that no negative reciprocal easement could arise since there would have been no tortious act committed.

[17] See Artificial Watercourses Distinguished, p. 56.

First, the law of drainage has not fallen into the same legal categorization that has obtained with regard to water-use law. But perhaps because of water-use law categories, the court has spoken in terms of these classifications even though it is determining a question of drainage.

In 1869 the supreme court held that there is no distinction, with respect to drainage, between surface water and running streams.[1] In 1891 an appellate court[2] in following the rule laid down by the supreme court said that the rule as to obstructing the flow of water is the same whether it was "in a well-defined course or surface water which accumulated and ran in a certain course."[3]

The supreme court has held that a landowner may construct a levee in the interests of good husbandry only if it will not cause injury to the drainage rights of others. It indicated that overflow waters of a running stream are to be treated as surface waters for such purpose. But rules applicable to large rivers were expressly left undecided, as noted earlier.[4]

Apparently, then, the rules of drainage laid down by the court with regard to one legal category of water in a particular case often are also generally applicable to other legal categories. But rules regarding large rivers remain undecided, as already noted. Moreover, distinctions between watercourses and surface water apparently have significance in applying the drainage rules described below. But the definition of a watercourse for drainage purposes differs from that employed for water-use purposes. For drainage purposes the water apparently need not have a defined bed and banks, and the definition otherwise may be less restrictive.[5]

One of the early cases that clearly states the general law of drainage is *Dayton v. Drainage Commission.*[6] The court said:

The rule undoubtedly is, that the owner of a higher tract of land has the right to have the surface water falling or naturally coming upon his premises by rains or melting snow pass off through the natural drains upon or over the lower or servient lands next adjoining, and the owner of the dominant heritage has the right, by ditches and drains, to drain his own lands into the channels which nature has provided, even if the quantity of water in that way thrown upon the next adjoining lower land is thereby increased. But the owner has no right to open or remove natural barriers and let on to such lower lands water which would not otherwise naturally flow in that direction.[7] That would

[1] Gormley v. Sanford, *supra* at 162.

[2] O. and Miss. Ry. Co. v. Nuetzel, 43 Ill. App. 108 (1891).

[3] *Id.* at 118. See also St. L. Merchants' Bridge Terminal Ry. Co. v. Schultz, 126 Ill. App. 552, 557 (1906).

[4] Pinkstaff v. Steffy, *supra,* 75 N.E., at 165. Also see Dickerson v. Goodrich, *supra,* 190 Ill. App. 505, 508, and Shontz v. Metzger, *supra,* 186 Ill. App. 436, 422 (1911).

[5] See Natural Watercourses (Definition), p. 9.

[6] 128 Ill. 271 (1889). See also Dwyer v. Village of Glen Ellyn, 314 Ill. App. 572 (1942); Schmahl v. Ackerson, 332 Ill. App. 278 (1947). *Cf.* dicta in Wilse v. Mieher, 14 Ill. App. 2d 126 (1957).

[7] Other cases to the effect that a riparian owner has the right to have a watercourse to which he is riparian carry only such volume of water as may be collected by the drainage basin are discussed at the end of the section on Alteration of Quantity, p. 31.

subject the servient heritage to an unreasonable burden which the law will not permit, and against which the owner ought reasonably to have protection.

In another supreme court decision the court said:[8]

It may be regarded as a well-settled principle of law that where two farms adjoin, and one lies lower than the other, the lower farm will be subject to the natural flow of water from the one which lies in a more elevated position . . . It may also be regarded as a well-settled rule that the owner of the upper field cannot construct drains or ditches so as to create new channels for water in the lower field, but he may make such drains, for agricultural purposes, on his own land as may be required by good husbandry, although by so doing the flow of water may be increased in a regular, well-defined channel which carries the water from the upper to the lower field.

. . . In respect to the drainage of surface water, there is no principle which will prevent the owner of land from filling up the wet and marshy places to his own advantage because his neighbor's land is so situated as to be incommoded by it. If it be true that the water which would naturally accumulate in these ponds could be cast upon [defendant's] land by filling them up, upon what principle can the owner of the dominant heritage be denied the right to do the same thing in another way? [Plaintiff had drained water from ponds on his higher land, along the natural drainage pattern, to the land of defendant, by means of a tile.]

The court said, however, that the owner of the higher tract of land might not have the right to drain a lake or other large body of water so that it destroyed the use of the lower land. It therefore seems that, within the framework of the general civil-law rule, the court might be guided in this respect by a doctrine of reasonableness with regard to the permitted acts of drainage.

In a later case the court stated the qualification that surface water may be drained through natural depressions and into natural streams *so long as they are used without exceeding their natural capacity.*[9] The qualifications stated in these two cases, however, apparently were incidental statements rather than direct holdings in this regard.

Rules of drainage apply equally to individuals,[10] corporations,[11] and municipalities.[12] They also apply equally to farm land,[13] highways,[14] and

[8] Peck v. Herrington, 109 Ill. 611, 618 (1884).

[9] People v. Peeler, 290 Ill. 451 (1919). But the court in an earlier case held that a landowner has the right to drain the overflow waters of a stream through natural drainways across adjoining land, although it left undecided the question of the overflow waters of large rivers, as noted earlier. Pinkstaff v. Steffy, *supra.* Regarding other qualifications of the general drainage rule, see H. Hannah, Illinois Farm Drainage Law, U. Ill. Agr. Ext. Cir. 751 (1956), at 6 and 8.

With respect to the historical development of drainage rules in Illinois, see Hannah, *History and Scope of Illinois Drainage Law,* and Ratcliff, *Private Rights Under Illinois Drainage Law,* U. Ill. L. Forum (1960) pp. 189-216.

[10] Gormley v. Sanford, *supra.*

[11] Eimers v. C.C.C. and St. L. Ry. Co., 158 Ill. App. 557 (1910).

[12] Elser v. Village of Gross Point, 223 Ill. 230 (1906).

[13] Graham v. Keene, 34 Ill. App. 87 (1889).

[14] Town of Saratoga v. Jacobson, 193 Ill. App. 110 (1914); Grommes v. Town of Aurora, 37 Ill. App. 2d. 1 (1962).

to city lots unless the city has established an artificial grade and sewerage of which property owners can reasonably avail themselves.[15]

For many years Illinois has had a drainage code to supplement the judicial rules of drainage. This code implements cooperative effort by providing for drainage-district organization to meet local needs for drainage and flood control.[16]

A new code was adopted in 1955 clarifying, codifying, and simplifying the original code and its various amendatory acts.[17] The new code embodies not only the provisions for drainage-district organization and operation, but also certain statutory codifications, modifications, and enlargements of the common-law rules of drainage, some of which have existed since 1885[18]

One section of the code provides: "Land may be drained in the general course of natural drainage by either open or covered drains. When such a drain is entirely upon the land of the owner constructing the drain, he shall not be liable in damages therefor."[19]

This is similar to a provision enacted in 1885 which was said by the supreme court to substantially codify the general rule of drainage.[20]

A statutory modification provides that an owner of land may file suit in the county court to obtain the right to extend a covered drain along the general course of natural drainage across another person's land without his consent.[21] If this is done, however, such a drain must be necessary in order to obtain a proper outlet. The plaintiff in such an action must file a bond and must pay the cost of the proceedings.[22] He must also file a plat showing the proposed drain and the details involved.[23] The case is heard just as is any other civil proceeding in the county court.[24] To give judgment for the plaintiff at the trial, the court must find that the proposed drain will be of ample capacity, will not materially damage the defendant's land, and will empty into a natural watercourse, artificial highway drain (with the consent of the highway authorities), or some other outlet that the plaintiff has a right to use.[25]

[15] Gormley v. Sanford, *supra.*

[16] ILL. REV. STAT., c. 42, §§ 1-12. The first such code was adopted in Illinois on May 29, 1879.

[17] ILL. LAWS, 1955, at 512. Effective Jan. 1, 1956.

[18] The statutory enlargements of the common-law rules of drainage are found in ILL. REV. STAT., c. 42 §§ 2-1 through 2-11. Sections 2-1 through 2-7 are from ILL. LAWS, 1885, at 77. Sections 2-8 through 2-10 are from ILL. LAWS, 1889, at 116. Section 2-11 is new.

[19] ILL. REV. STAT., c. 42, § 2-1.

[20] Lambert v. Alcorn, 144 Ill. 313 (1893). The court said the statute was in substantial accord with the general rule applied in Peck v. Herrington, *supra*, before its enactment, without considering the possible qualification of the rule stated in the *Peck* case as noted earlier. The possible qualification of the general rule stated in People v. Peeler, *supra,* was stated without express reference to this statute, although it apparently was then in effect.

[21] ILL. REV. STAT., c. 42, § 2-2.

[22] *Id.* § 2-3.

[23] *Id.* § 2-4.

[24] *Id.* § 2-2.

[25] *Id.* § 2-5.

The defendant is allowed such actual damages as will be sustained by entering upon the land and constructing the drain and thereafter keeping it in repair.[26] The judgment in such a proceeding allows the plaintiff to enter on the defendant's land to construct the drain. He and his successors in title may enter upon the land at all times to repair the drain. In fact, they are under a duty to keep it in good repair. They are liable for any unnecessary damage caused in repairing the drain in an amount three times the amount of unnecessary damage caused.[27]

A statutory enlargement provides for the creation and continuation of drains and levees for mutual benefit.[28] When a drain or levee is constructed by two or more landowners for their mutual benefit and by mutual agreement or consent, it is declared to be a perpetual easement on the lands involved and cannot be obstructed or impaired in any way without the consent of all landowners concerned.[29]

The statute provides that no other person may connect to a mutual drain or levee without the consent of all interested parties.[30] Any interested party may, at his own expense, go upon the lands of others and repair the drain or levee.[31] He is not liable for any resultant damage to land or crops unless he is negligent in performing the work.[32]

The functions and organization of drainage districts are considered later.

WATER-USE REGULATION AND RELATED FUNCTIONS OF STATE AND LOCAL BODIES

Organizations in Illinois involved in water-use regulation and related functions fall into four categories: 1) state departments, boards and commissions, 2) local governmental units, 3) special district organizations created by statute, and 4) special district organizations created under permissive legislation.

State Departments, Boards, and Commissions

In the department category, the Department of Public Works and Buildings appears to be most directly concerned with water-use regulation.[1]

[26] *Ibid.*

[27] *Id.* § 2-6.

[28] *Id.* §§ 2-8 through 2-11.

[29] *Id.* § 2-10. See Artificial Watercourses Distinguished, p. 56, regarding a case (Kenilworth Sanitarium v. Village of Kenilworth) that considered a similar prior statute.

[30] *Id.* § 2-9.

[31] *Id.* § 2-11.

[32] *Ibid.*

[1] See *Id.* c. 127, § 3 for the statute creating this and other state departments. The Department's powers and duties with regard to water-use regulations are found primarily in c. 19.

Department of Public Works and Buildings. The statutes provide that the Department of Public Works and Buildings has jurisdiction and rather broad powers of supervision over all public waters.[2]

The general duties of the Department are stated as follows:

> It shall be the duty of the Department of Public Works and Buildings to have a general supervision of every body of water within the State of Illinois, wherein the State or the people of the State have any rights or interests, whether the same be lakes or rivers, and at all times to exercise a vigilant care to see that none of said bodies of water are encroached upon, or wrongfully seized or used by any private interest in any way, except as may be provided by law and then only after permission shall be given by said department, and from time to time for that purpose, to make accurate surveys of the shores of said lakes and rivers, and to jealously guard the same in order that the true and natural conditions thereof may not be wrongfully and improperly changed to the detriment and injury of the State of Illinois.[3]

In addition, the Department is given certain specific regulatory powers and duties, which are described in more detail in an earlier section.[4] It is the duty of the Department to investigate attempts to interfere with navigation[5] or attempts to assert rights with reference to docks, landings, wharves, and free access to and egress from navigable waters.[6] It also shall check all waters for encroachments,[7] receive complaints of encroachments on rights of the state or of its citizens with reference to public waters, and, on request, shall hold public hearings, take evidence, and enter orders defining the rights and interests involved and prescribing duties.[8] The act makes it unlawful to erect or make any structure, fill, or deposit in any public waters without first submitting plans and specifications to the Department and receiving a permit to do the work.[9] If the access of riparian owners will be affected by such proposed work "for a structure, fill or deposit in a slip," their written consent shall be obtained before the permit will be issued.[10]

The Department of Public Works and Buildings may require changes or prevent changes where the carrying capacity of streams or rivers may be impaired. It may require proper maintenance and modifications of existing dams to attain the proper control of water levels in the disposal of flood waters and at normal stages, and may require the installation of fishways in dams wherever deemed necessary as recommended by the Department of Conservation.[11] The Department also "shall establish by

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[2] *Id.* c. 19, § 52. For earlier discussion of the definition of public waters and the extent of the Department's jurisdiction, see Jurisdiction over Public Waters, p. 116.

[3] *Id.* § 54.

[4] See Jurisdiction over Public Waters, p. 116.

[5] ILL. REV. STAT., c. 19, § 56.

[6] *Id.* § 57.

[7] *Id.* § 60.

[8] *Id.* § 55. Penalties and other enforcement powers are considered later.

[9] *Id.* § 65.

[10] *Ibid.*

[11] *Id.* c. 19, § 70.

regulations water levels below which water cannot be drawn down behind dams from any stream or river . . . to preserve the fish and other aquatic life in the stream, and to safeguard the health of the community."[12]

The Department is specifically authorized to issue permits to non-riparians to use water from public bodies of water for industrial, manufacturing, and public-utility purposes, provided that "such use shall not interfere with navigation." Such permits, although renewable, cannot be issued for a period exceeding 40 years and must be approved by any municipality which borders on the body of water which is the source.[13] The Department is also specifically authorized to make agreements, not to exceed five years, to take minerals and other materials from the beds of streams and lakes, with persons to whom permits have been issued to erect structures, etc.[14]

Other sections of the applicable act include these provisions:

1. Before recording any plats for land bordering or including public waters of the state, in which the state has property rights or interests, they shall be reviewed and approved by the Department.[15]

2. Drainage districts shall obtain approval from the Department of any plans for performing any work which would increase the flow of water into any stream or which would change the natural course of any stream.[16]

3. The Department may fix shore lines and harbor lines on lakes or streams through cities or other places where the public interest requires.[17]

4. The Department shall list by counties all waters of the state, showing if they are navigable or non-navigable, the extent of shore lines and the amount, extent, and area of surface, and whether they are meandered.[18] In addition, it shall collect, make available, and act as a repository[19] for data on navigability,[20] deep waterways,[21] and any other data on the waters of the state.[22]

5. The Department shall maintain stream-gauging stations and investigate carrying capacities.[23] It also shall obtain data on the availability of streams for water power,[24] and shall furnish at cost data and advice as to reclamation and drainage of lands.[25] In 1959 it was directed to prepare a master plan for the drainage and flood control of all watershed areas of the state.[26]

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[12] *Ibid.*
[13] *Id.* c. 19, § 65.
[14] *Id.* § 65a *et seq.*
[15] *Id.* § 54. See also c. 115, § 13.
[16] *Id.* c. 19, § 78.
[17] *Id.* § 71.
[18] *Id.* § 52. See list compiled by the Department in Appendix A.
[19] *Id.* § 62.
[20] *Id.* § 58.
[21] *Id.* § 59.
[22] *Id.* § 53.
[23] *Id.* § 70.
[24] *Id.* § 67.
[25] *Id.* § 64.
[26] *Id.* c. 42, § 472.

6. The Department shall plan, devise, and report to the Governor and General Assembly methods of preservation and beautification of public waters.[27] The Department may devise schemes for the reservation of land in connection with public waters for public preserves for pleasure, recreation, and sport.[28]

7. The Department shall

"make examinations and surveys, to prepare plans and estimates for, and to construct . . . maintain and operate or supervise . . . all works for the control of floods, the improvement of upland and bottomland drainage and the conservation of low water flows in the rivers and waters of Illinois including the watersheds thereof."[29]

But it must receive the authority of the General Assembly before any improvement work is begun.[30]

8. Whenever so authorized and directed by the General Assembly, the Department may cooperate with proper agencies of the United States Government, local governmental units, and persons and associations in the planning and construction of improvements for flood control and the conservation, regulation, development, and utilization of water resources and waterways.[31] It also is specifically directed to cooperate with federal agencies and other state agencies for the "regulation and maintenance of the levels of Lake Michigan and the Great Lakes, and to make suggestions for the control and regulation of the diversion of water therefrom."[32]

9. The Department has "control and management of the Illinois and Michigan Canal, including its feeders, basins and appurtenances, and the property belonging thereto,"[33] and locks and dams and other improve-

[27] *Id.* c. 19, § 63.

[28] *Id.* § 66. The Department has indicated it would refer such matters to, or cooperate with, the Department of Conservation, whose functions are discussed *infra.*

[29] *Id.* § 126b.

[30] *Id.* §§ 126a to 126h. See Appendix J for chart outlining how such projects are initiated, authorized, and completed.

The Department may, in its discretion or at the direction of the General Assembly, cause a comprehensive examination and report to be made regarding particular projects, which shall include, among other things, a statement of general or statewide benefits, and special or local benefit to affected localities, with recommendations as to what local cooperation, if any, should be required on account of such special or local benefits (§ 126e). An associated declaration of policy states that the state should improve or participate in such improvement of rivers, waters, and watersheds "if the benefits are in excess of the estimated costs, and if the lives and general welfare of the People of Illinois are adversely affected" (§ 126a).

[31] *Id.* § 126d.

[32] *Id.* § 119.

[33] *Id.* § 8. The Illinois and Michigan Canal runs through Cook, Du Page, Will, Grundy, and La Salle counties. A legal description of the area involved may be found in 61 U. S. STAT. AT LARGE at p. 237 (Act of July 1, 1947).

The Canal has been abandoned as a commercial waterway by the federal government and its control and maintenance have been assigned to the Department. As amended in 1954, the ILLINOIS CONSTITUTION, separate sec. 3, authorizes the state to sell or lease the Canal and other canals or waterways owned by the state. In 1956 the Department's Division of Waterways published a DOCUMENTARY HISTORY OF THE ILLINOIS AND MICHIGAN CANAL: LEGISLATION, LITIGATION, AND TITLES, comp. by Walter A. Howe. See p. 241, *infra.*

ments of the navigation of the Illinois and Little Wabash Rivers, subject to federal jurisdiction.[34] As such, the Department has extensive regulatory power over these waters. In addition, certain water terminal facilities in Cook County were deeded to the state in 1928 by the Atchison, Topeka, and Santa Fe Railway Company, and the responsibility for the improvement and maintenance of these facilities has been placed with the Department.[35]

10. The construction, maintenance, control, and operation of the Illinois Waterway and its appurtenances are also the responsibility of the Department, subject to any conditions and limitations imposed by the federal government.[36]

For the biennium July 1, 1959, to July 1, 1961, the legislature appropriated a little over 3 million dollars to the Division of Waterways for its standard operations and more than 7 million dollars for special projects, studies, and capital improvements.[37]

A chart indicating the organization of the Department's Division of Waterways appears in Figure 2. In addition to its headquarters in Springfield, the Department maintains offices in Chicago, Carbondale, Rock Island, Joliet, Havana, and Lockport.[38]

The Department's regulatory activities under the applicable statutes have been described earlier.[39] Among other activities, the Department's Division of Waterways has built, and operates and maintains, the McHenry Dam below Pistakee Lake on Fox River. This dam maintains water levels in Fox Chain of Lakes for swimming, boating, fishing, and associated activities, and also provides navigable depths in the river between the dam and the lakes. The dam has a lock for the passage of recreational navigation. Algonquin Dam has been built 16 miles downstream to provide, with supplementary dredging, a navigable channel between the two dams. Other improvements and the maintenance of Chain of Lakes have made it an important public recreational water facility in this area; further improvements are being planned, including the construction of new dams and the repair or reconstruction of existing dams.

The Division, in cooperation with the Cook County Forest Preserve District, also has engaged in a long-range plan for the improvement of low-flow and boating conditions in the Des Plaines River in Cook County. The cooperative effort has included the construction and planning of several dams.[40]

[34] ILL. REV. STAT., c. 19, §§ 8 to 34.1.

[35] *Id.* §§ 146 to 149.

[36] *Id.* §§ 84, 85. The statute specifies that the waterway "shall be constructed from the water power plant of the sanitary district of Chicago, at or near Lockport, in the Township of Lockport, in the County of Will, to a point in the Illinois River at or near Utica" (§ 79). See page 240, at reference to note 30.

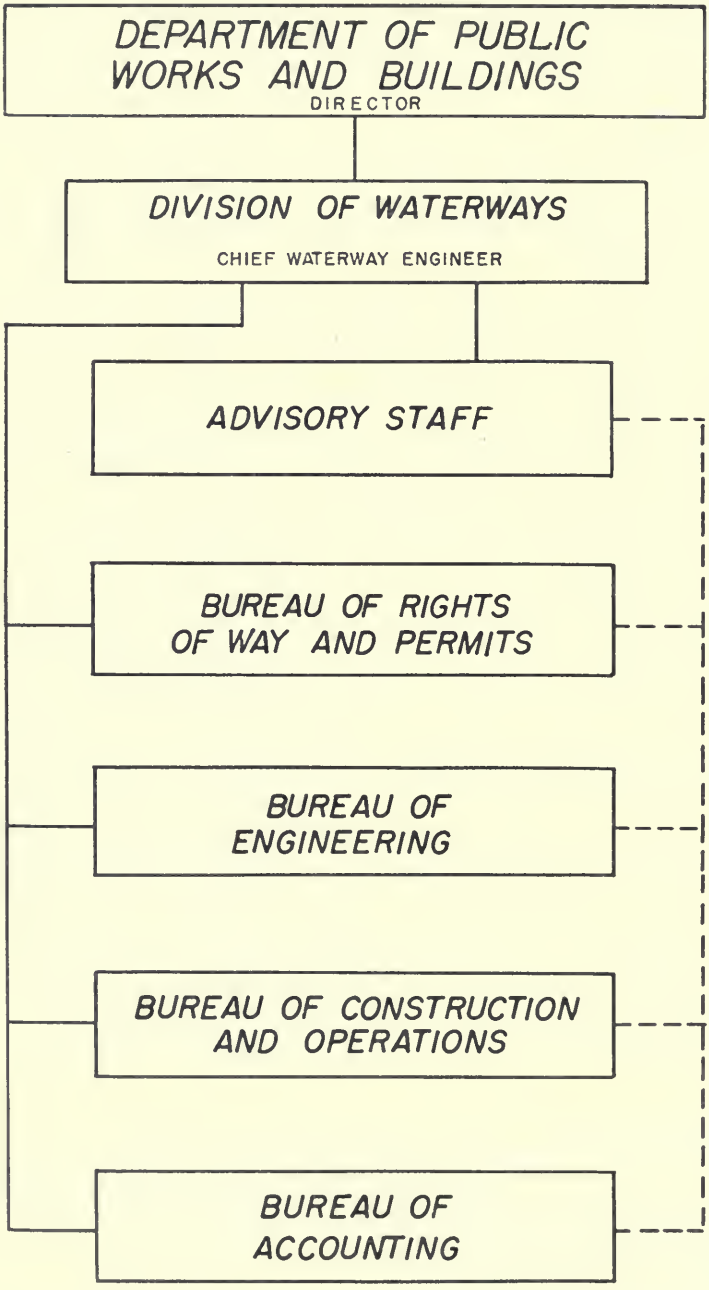
[37] See 1960 ANN. REP. of the Department's Division of Waterways.

[38] *Ibid.*

[39] See Jurisdiction over Public Waters, p. 116.

[40] See the Division's 1957, 1958, 1959, and 1960 ANN. REP. at pp. 52-56, 43-44, 43-46, and 47, respectively, and ILL. LAWS 1959, at p. 111.

FIGURE 2. — ORGANIZATION PLAN OF ILLINOIS DIVISION OF WATERWAYS



The Division also has engaged in the study, planning, or construction of a number of projects for flood control or drainage purposes,[41] and reports have been published regarding water utilization and control resulting from the Division's cooperative study program with the U.S. Geological Survey.[42]

Other departments, boards and commissions. In addition to the Department of Public Works and Buildings, some other state departments and boards are involved in water-use regulation or have certain functions that affect the use of water. These include the Departments of Conservation, Mines and Minerals, Registration and Education, Agriculture, and Public Health, the State Sanitary Water Board, Board of Economic Development, and Illinois Commerce Commission.

The *Department of Conservation* administers the Fish Code of Illinois.[43] Under this code it may regulate fishing and establish and operate fish preserves and hatcheries and public fishing and water recreational facilities.[44] It also is responsible for regulating the operation of motorboats.[45]

The Department is authorized "to take all measures necessary for the conservation, preservation, distribution, introduction, propagation, and restoration of fish," and other specified wildlife, including fauna and flora, except where other laws delegate responsibilities specifically to other governmental agencies. The Department also is authorized:

to exercise all rights, powers, and duties conferred by law and to take such measures as are necessary for the investigation of and the prevention of

[41] See pp. 44-49, 37-39, and 38-42, respectively, of the 1957, 1958, and 1959 ANN. REP. These and other functions are described in the Division's annual reports and in the Department's 1955 publication, 132 YEARS OF PUBLIC SERVICE, THE HISTORY AND DUTIES OF THE DIVISION OF WATERWAYS. The Division also prepared a compilation of Illinois statutes relating to waterways in 1959.

[42] See, *e.g.*, WATER-SUPPLY CHARACTERISTICS OF ILLINOIS STREAMS (1950); FLOW DURATION OF ILLINOIS STREAMS (1957).

[43] ILL. REV. STAT., c. 56, § 141 *et seq.* See Control and regulation of fishing, p. 109. The Department has prepared a compilation of the state's Game and Fish Codes.

[44] See *Id.* § 144.03.

A number of fish hatcheries and field headquarters are in operation. A number of the public waters of the state are stocked with fish, and fish stock is furnished to clubs and individuals for a number of other approved, manageable lakes and ponds. Fish management surveys and related activities regarding public and private waters also are conducted. See the Department's 1959 ANN. RPT., pp. 5, 9, 11. The Department since 1940 has engaged in a lake development program. It has selected several lake sites in various counties and has completed work on some of these sites. See the Department's 1958 ANN. RPT. at p. 5, 1963 ANN. RPT. at p. 1, and ILL. LAWS, 1963, pp. 3398 and 3286. A number of parks, conservation areas, etc., have been established around lakes. See 1963 ANN. RPT. at p. 38 regarding fish and game regulatory activities.

The Department may, under certain conditions, issue a permit to a person owning or controlling by lease a water area, and access thereto, a license to operate a "daily fee fishing pond area" (ILL. REV. STAT., c. 56, §§ 239b, 243). See Control and regulation of fishing, p. 109, for a discussion of this legislation and for court decisions and Attorney General opinions construing it.

[45] *Id.* c. 95½, § 311-2; c. 127 § 63a. See Boat Registration and Safety Act, p. 129.

pollution of and engendering of sanitary and wholesome conditions in rivers, lakes, streams and other waters in this State as will promote, protect and conserve fauna and flora and to work in conjunction with any other Department as shall be proceeding to prevent stream and water pollution.[46]

The *State Mining Board,* in the *Department of Mines and Minerals,*[47] is authorized to make "such reasonable rules, regulations, and orders as may be necessary . . . to prevent the pollution of fresh water supplies by oil, gas, or salt waters."[48] Also, a permit shall be obtained from the State Mining Board before drilling a water well that penetrates the subsurface below the glacial drift.[49]

Anyone having control of a well drilled for water shall file a log of the well in the office of the *State Geological Survey Division* of the *Department of Registration and Education.*[50] A 1959 act provides, with certain exceptions, for the licensing of water-well contractors by the Department's *Board of Water Well Driller Examiners.*[51] Other statutes provide for the collection and dissemination by the Department of data concerning amount, types, movement, and analysis of water resources of the state (the Department's *State Water Survey Division* has a large role in this regard[52]) and for offering the cooperation and advice of the Department to other state departments, and for cooperation with similar departments in other states and with the United States Government.[53] The *State Water Survey Division* and the *Department of Public Works and Buildings* cooperate with the *U.S. Geological Survey* in a stream-gauging program.

The *Department of Agriculture* has certain approval powers under the Soil and Water Conservation Act regarding the organization and operation of soil and water conservation districts.[54] It also has certain functions regarding small watershed projects carried out under federal law.[55] The *Soil and Water Conservation Districts Advisory Board* has related functions.[56]

The *Department of Public Health* is required:

to act in a supervisory capacity relative to the sanitary quality and adequacy of proposed and existing public water supplies, water treatment and purifica-

[46] *Id.* c. 127, § 63a. See Appendix B for a discussion of the *Sycamore Preserve Works* case, as an example of the Department's activity under another statute regarding the death of fish or aquatic life from water pollution, discussed under Pollution, page 37. The Department may also acquire, hold, and manage land or water areas as nature preserves under the supervision or advice of the Illinois Nature Preserves Commission. ILL. LAWS, 1963, p. 3464 and 3480.

[47] ILL. REV. STAT., c. 127, § 5.04.

[48] *Id.* c. 104, § 67.

[49] *Id.* §§ 63, 67, 67a. See Percolating Groundwater, p. 130.

[50] *Id.* §§ 34, 36.

[51] *Id.* c. 111½ § 116.76 *et seq.* See Percolating Groundwater, p. 130.

[52] See PUBLICATIONS OF THE ILLINOIS STATE WATER SURVEY (1961). At p. 17 this states, among other things, that well tests are conducted for the use of municipal officials, consulting engineers, and private persons.

[53] ILL. REV. STAT., c. 127, §§ 58.12, 58.13, and 58.27 to 58.30.

[54] *Id.* c. 5, § 106 *et seq.* See discussion of soil and water conservation districts.

[55] *Id.* c. 19, § 128.1 *et seq.* See Federal Matters, p. 230.

[56] See references in Notes 54 and 55, *supra.*

tion works, and to prepare and enforce rules and regulations relative to the installation and operation of public water works.[57]

The *State Sanitary Water Board* conducts regulatory and related functions with respect to water pollution.[58] Its members include the directors of the Departments of Public Health, Conservation, Agriculture, and Public Works and Buildings, and two members appointed by the Governor to represent industrial interests and municipal government. The Chief Sanitary Engineer of the Department of Public Health serves as the Board's technical secretary.[59]

The *Board of Economic Development* has been delegated a variety of powers and functions to further the economic development of the state.[60] With respect to water resources this includes the power "to determine and provide ways and means for the equitable reconciliation and adjustment of the various conflicting claims and rights to water by users or uses."[61] The Board also may conduct investigations to determine ways of coordinating the various water uses to attain maximum beneficial use of water resources, and it may require other agencies of the state to make studies, furnish data, and otherwise assist its operations. It may make legislative recommendations for the most feasible methods of conserving water resources and putting them to maximum use, taking into account a variety of specified problems.[62] It also may represent the state in matters concerning water resources projects of the federal government.

The more general functions of the Board of Economic Development include the encouragement and promotion of new industries, industrial expansion, tourism, and economic development generally. In this regard it may collect information on power and water resources, availability of industrial sites, and the advantages of the state or particular sections thereof as industrial, recreational, and tourist locations.

The Board's members include the Governor (chairman) and the Directors of Aeronautics, Agriculture, Conservation, Insurance, Labor, Mines and Minerals, Public Works and Buildings, and Revenue. It also has an executive director, and a 15-member *Council of Economic Advisers* is empowered to advise the Board on prevailing economic conditions and aid it in carrying out development plans.

The *Illinois Commerce Commission* has jurisdiction over public utilities engaged in the supplying of water and electricity to the public or other enterprises, and it determines that certain provisions of the statutes relating to public utilities are complied with.[63] The Commission has jurisdiction regarding rates and other charges, services provided, management of property, and the issuance of stocks and bonds.

[57] Ill. Rev. Stat., c. 127, § 55.03 and c. 111½, § 121a, *et seq.*

[58] *Id.* c. 19, §§ 145.1, *et seq.* See Pollution, at p. 42, for its functions.

[59] *Id.* § 145.3 to 145.4.

[60] *Id.* c. 127, § 200.1 *et seq.*

[61] See Administrative Remedies (Board of Economic Development), p. 221.

[62] See State Water-Use Policy, p. 4.

[63] Ill. Rev. Stat., c. 111⅔, § 1 *et seq.* Cities also may exercise certain local jurisdiction over such public utilities within their limits (§ 85).

Before a new plant, equipment, property, or facility may be constructed, a public utility certificate must be obtained from the Commission, showing that public convenience and necessity require such construction.[64] The Commission may order certain new structures, additions, extensions, alterations, or improvements to be made.[65] When necessary for such construction, public utilities may exercise eminent domain powers to take or damage private property.[66]

In one case involving a non-navigable stream, the court held that this Commission, rather than the Department of Public Works and Buildings, had jurisdiction to direct and authorize the construction of a power dam by a public utility. The company involved was exercising its eminent domain powers for the purpose of flooding riparian lands.[67]

In 1961 the Illinois legislature created the *Mississippi Canal and Sinnissippi Lake Commission*[68] and gave it responsibility to consult with relevant federal and state officials in devising a plan to continue the utilization of the Illinois-Mississippi (or Hennepin) Canal for supervised recreational purposes. The Act's preamble noted that federal authorities were contemplating abandonment of the Canal and that previous enabling legislation had paved the way for the state to acquire and maintain the Canal as a recreational area.[69]

Previous legislation in 1955 authorized the state Departments of Conservation and Public Works and Buildings, subject to the Governor's approval, to enter into agreements with authorized representatives of the United States Government to further 1) the acquisition by the United States of fee simple title to the lands in Sinnissippi Lake created by the federal dam constructed across Rock River between Sterling and Rock Falls for its Illinois and Mississippi Canal project and certain other lands, subject to the continuing right of access to the lake by the riparian landowners, 2) the placing of the Lake and Canal in proper condition for public recreational use, and 3) the conveyance of the federal property to the state for use as a state park,[70] under the supervision of the Department of Conservation. The Department of Public Works and Buildings (independently or in cooperation with the Department of Conservation) shall control, operate, and maintain all dams and other facilities in regard to the regulation of water levels in the park.[71]

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[64] *Id.* § 56.

[65] *Id.* § 50.

[66] *Id.* § 63.

[67] Cent. Ill. Pub. Serv. Co. v. Vollentine, 319 Ill. 66 (1925). Also see Interstate Water Co. v. Adkins, 327 Ill. 356 (1927) regarding the condemnation of certain land for a reservoir.

[68] To consist of 10 members of the legislature, plus one member appointed by the Governor, and the Directors of Conservation and Public Works and Buildings.

[69] Ill. Laws, 1961, p. 3839. See also Ill. Laws, 1963, pp. 1724 and 3292.

[70] Subject to certain provisions regarding railroad bridges, roads, etc.

[71] Ill. Rev. Stat., c. 105, § 482a *et seq.* The Canal has been abandoned as a commercial waterway and arrangements have been made for the federal government to convey its interest to the state, as discussed under Federal Matters (Corps of Engineers), p. 232.

Local Government Units

Such units include municipalities, counties, and townships. "The corporate authorities in all municipalities have jurisdiction over all waters within or bordering upon the municipality, to the extent of three miles beyond the corporate limits. . . ."[1] The corporate authorities are expressly given the power to deepen, widen, dock, cover, wall, or alter channels of watercourses, in connection with street and related improvements.[2] But it has been held that, under former similar statutes, the grant of such power was subject to the rights of owners riparian to the watercourse involved.[3] Another statute authorizes municipalities to change or relocate natural or artificial watercourses within their boundaries in connection with street and related improvements,[4] subject to the regulatory jurisdiction of the state Department of Public Works and Buildings, described earlier. Eminent domain powers may be used for such purposes.[5] Corporate authorities are further given the power to regulate the construction, repair, and use of cisterns, culverts, drains, sewers, cesspools, pumps, and hydrants and the covering or sealing of wells or cisterns.[6]

The Illinois statutes empower municipalities "to provide for a supply of water for fire protection and for the use of the inhabitants of the municipality"[7] in various ways, and authorize them to go beyond their corporate limits and to exercise condemnation and other powers to acquire and hold necessary property.[8] They further provide that the juris-

[1] *Id.* c. 24, § 7-4-4. "Corporate authorities" refers to the governing body of any incorporated city, town, or village (*Id.* § 1-1-2).

This statutory provision does not specify for what purposes or in what manner such jurisdiction may be exercised. In an 1884 case the court cited a forerunner of this statute, containing substantially identical language, in support of its holding that the City of Chicago had power to authorize the construction of a bridge over the Chicago River, subject to the federal government's powers over navigable waters of the United States. (See Federal Matters, p. 230.) The court said that: "The city we look upon as the representative of the State, with respect to the control of . . . bridges, within the city limits." But the court's decision appears to have been based primarily on the city's special charters authorizing it and its chartered (by city ordinance) construction company to build the bridge. McCartney v. Chicago and E. R.R., 112 Ill. 611, 635 (1884).

Note that this statute (Ill. Rev. Stat., c. 24, § 7-4-4) follows a provision giving municipalities "jurisdiction in and over all places within one-half mile of the corporate limits for the purpose of enforcing health and quarantine ordinances and regulations." *Id.* § 7-4-1.

[2] *Id.* § 11-104-1.

[3] Chicago v. Van Ingen, 152 Ill. 624, 635 (1894). See also Village of Prairie Du Rocker v. Schoening Koeningsmark Milling Co., 248 Ill. 57 (1910) for a further construction of the application of such a statute.

[4] And they may fill in such watercourses for such purposes if the Congress has declared them to be non-navigable or the United States has surrendered or abandoned jurisdiction over them. Ill. Rev. Stat., c. 24, § 11-87-3. See Federal Matters, p. 230.

[5] Ill. Rev. Stat., c. 24, § 11-87-1 *et seq.*

[6] *Id.* § 11-20-10. See also § 11-109-1. The extent of these powers is not clear.

[7] *Id.* § 11-126-1 *et seq.* See also § 11-129-1 *et seq.*, as to municipalities with less than 500,000 population.

[8] *Id.* § 11-126-3. See also § 11-125-1 *et seq.*

diction of a municipality "to prevent or punish any pollution or injury to the stream or source of water for the supply of the waterworks extends 10 miles beyond its corporate limits."[9] Another provision extends such jurisdiction to prevent or punish pollution or injury to the source of a city or village's water supply or waterworks "20 miles beyond its corporate limits, or so far as the waterworks may extend."[10] This follows a section authorizing cities and villages to:

(1) provide for a supply of water by the boring of artesian wells, or by digging, construction, or regulation of wells, pumps, cisterns, reservoirs, or waterworks, (2) borrow money therefor, (3) authorize any person to bore, dig, construct, and maintain the same for a period not exceeding 30 years, (4) prevent the unnecessary waste of water, (5) prevent the pollution of water, and (6) prevent injuries to the wells, pumps, cisterns, reservoirs, or waterworks.[11]

In a recent case an ordinance enacted by a city that was operating a water system supplied from a lake some eight miles beyond its limits was held, on the basis of the facts asserted, to be a valid prohibition against oil and gas well operations in the drainage area of the lake to protect the public water supply. The court indicated that the lake was "owned by the city." It cited former similar versions of two of the statutory provisions mentioned above as providing cities with authority to enact such regulatory ordinances, noting that individual uses of property may be subjected to public health and safety requirements of such exercise of the police power.[12] It said, however, that the defendants might be able to show that the need for such regulation was too remote or that they could provide sufficient safeguards in their operations to prevent pollution.

Another section of the statute provides that municipalities have the power:[13]

[9] *Id.* § 11-126-3.

[10] *Id.* § 11-125-2. Also see c. 100½, § 26 regarding municipalities' powers to declare what shall be public nuisances and to abate such nuisances within their limits. See § 27 regarding the dumping of garbage or other offensive substances within the boundaries (or a mile outside) of municipalities.

[11] *Id.* § 11-125-1. Condemnation and other powers may be exercised by two or more municipalities (except cities with 500,000 or more population) to jointly acquire and operate a waterworks system or common source of water supply. *Id.* § 11-135-1 *et seq.* See also § 11-128-8 authorizing two or more adjacent cities or villages to create a "water district" with a joint board of trustees to carry out various functions.

[12] City of West Frankfort v. Fullop, 6 Ill. 2d. 609 (1955). The court was referring to former statutory provisions that were similar to Ill. Rev. Stat., c. 24, §§ 11-126-3 and 11-125-2, described above.

On the basis of the facts asserted, the court upheld the city's ordinances as a valid regulation. In other states, some municipal ordinances to protect municipal water supplies have been upheld while others have been invalidated under particular circumstances. See 56 A.L.R. 2d. 791 (1956); 72 A.L.R. 673 (1931); 1959 Wis. L. Rev. 117; 57 Mich. L. Rev. 349 (1959). Such constitutional problems have been mitigated by the Effingham Water Authority by limiting the application of its zoning and water-use regulations primarily to lands adjoining its reservoir that it has purchased and leased. See Effingham Water Authority, p. 171. For related aspects of pollution, see Pollution, p. 37.

[13] Ill. Rev. Stat., c. 24, § 11-126-4.

. . . to make and enforce all needful rules, regulations, and enact ordinances for the improvement, care, and protection from pollution or other injury of any impounding reservoir or artificial lake constructed or maintained by the municipality for water supply purposes and any adjacent zone of land which the municipality may acquire or control. If the leasing of portions of such adjacent zone of land will, in the discretion of the corporate authorities, aid in the protection from pollution or other injury of the impounding reservoir or artificial lake by promoting forestation, development or care of other suitable vegetation, and the improvement, care, and maintenance of the premises, the corporate authorities may lease those portions of that land jointly or severally to custodians of good reputation and character for periods not to exceed 60 years, and permit those custodians to construct, maintain, use, and occupy dwelling houses and other structures thereon for such rental and on such other terms and conditions and subject to such rules and regulations and with such powers and duties as may be determined by the corporate authorities.

The statutes also provide that subject to certain conditions:

Any water company organized under the laws of this State for the purpose of supplying any municipality or the inhabitants thereof with water, may locate its source of supply at, or change its source of supply to, a point not more than 20 miles beyond the corporate limits of the municipality. Such company may enter upon any land and take and damage private property beyond those corporate limits, (1) for the construction, maintenance, and operation of a line or lines of water-pipe to the source of supply, (2) for the necessary pumping stations, reservoirs, and other appurtenances, and (3) for the protection of all reservoirs, submerged land, and source of supply from contamination, pollution, or damage from any cause whatsoever.[14] Eminent domain powers are provided for such purposes.[15]

Another statute provides that cities owning or operating waterworks under any charter granted by the state or under its general corporation laws[16] may increase or substitute a better source of supply by digging wells or leasing water privileges from persons owning wells.[17]

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[14] *Id.* § 11-138-1 *et seq.*

[15] *Id.* § 11-138-2.

[16] It may be noted that the Illinois constitution prohibits the General Assembly from passing local or special laws, as contrasted with laws of general applicability, to regulate county and township affairs or incorporate or amend the charters of towns, villages or cities. Ill. Const., art. IV, § 22. The court has indicated, however, that the legislature may classify cities on the basis of population and enact laws applicable to each class providing the classification rests on a reasonable basis in view of the object and purposes of the legislation. See People v. Schweitzer, 369 Ill. 355 (1938). See Ill. Laws, 1959, p. 1882 *et seq.*, described in note 37, p. 191. The court has indicated however, that this provision did not abrogate all special charters granted to cities or villages prior to its adoption. Covington v. East St. Louis, 78 Ill. 548 (1875). Moreover, the constitution, art. IV, § 22 provides that special, local, or general laws may be enacted to provide a scheme or charter of local government for the present or future territory embraced by the City of Chicago, subject to its provisions.

Also see the statutes described under Special District Organizations Created by Statute, p. 186. See note 3, p. 186, for some additional relevant Illinois cases.

[17] Ill. Rev. Stat., c. 24, §§ 11-132-1 to 11-132-3. With respect to the purchase, construction, or lease of waterworks or water supply and city water funds, bonds, rates, and taxes, see § 11-124-1 *et seq.*

Rights of municipalities to use navigable and non-navigable watercourses and ground waters have been discussed earlier.[18] A variety of rights and duties may arise with respect to the distribution and use of a municipality's water supply by its inhabitants or others, subject to the rights of the municipality itself in the supply source.[19] This may include certain water-use restrictions. For example, municipalities may adopt ordinances on lawn-sprinkling or use of water for air conditioners.[20]

Municipalities are further empowered to regulate the use of harbors and wharves,[21] to construct and repair canals, slips, wharves, docks, and levees[22] to provide for the purification of waters and the drainage of ponds on private property,[23] and to authorize the construction and regulation of mills and millraces through streets and municipal property.[24] They are authorized to provide for drainage and protection from overflow, and may construct works in or out of the corporate limits, using the power of

[18] See also the description of certain cases under Legal Remedies, particularly under Injunction, p. 205, and of 10 lower court cases in Appendix C. Municipalities were involved in five of the 10 cases. In three cases a city was sued for polluting a stream and was enjoined in two of these. In one case the city was sued and paid damages for flooding farmland by damming a creek. In the fifth case the city was sued regarding its use of groundwater. An injunction and damages were denied.

Also see the summary of replies from 150 Illinois municipalities (and 223 industries) that responded to a questionnaire regarding water rights, in J. CRIBBET, ILLINOIS WATER RIGHTS LAW AND WHAT SHOULD BE DONE ABOUT IT, Ill. State Chamber of Commerce (1958). Three of the 150 municipalities reported they had been involved in actual litigation regarding water rights. Each of these cases concerned pollution.

Some statutes that deal with municipalities and navigable or public waters include ILL. REV. STAT., c. 19, § 65 and c. 24, § 11-117-11, discussed in n. 63, p. 121. See also c. 24, § 11-123-11, *et seq.*, regarding the acquisition and operation of harbors for recreational purposes by cities or villages under 500,000 population. Also see §§ 11-123-5 and 11-117-11.

[19] It is not clear whether or to what extent the foregoing regulatory powers to prevent pollution may be exercised to protect a source of municipal water supply irrespective of the legality of a municipality's use thereof.

[20] For example, the City of Taylorville, during a period of drought, passed an ordinance limiting the use of water, especially for air conditioners, washing of cars, and sprinkling of lawns. See Ill. State Chamber of Commerce, Presentation to Commission on Water and Drought Situation, Sept. 13, 1956, Addendum, p. 15.

The City of Mt. Vernon has an alternative procedure. The mayor is authorized to curtail water use, by proclamation, if in his opinion an emergency exists. This relates to water supplied by the public water supply system owned by the city. Prior to Sept. 30, 1962, the system was owned by a private company which on occasion curtailed use during a drought period by company order in cooperation with the Illinois Commerce Commission and the city. (Based on letter dated October 9, 1962, from C. B. Lewis, City Manager.) Also, with respect to surcharges for water used in air-conditioning units without arrangements for re-using the water, imposed by water companies serving the Champaign-Urbana, Danville, and Evanston areas, see ILLINOIS WATER SUPPLY, Ill. State Chamber of Commerce (1956) p. 29.

[21] ILL. REV. STAT., c. 24, §§ 11-44-1, 11-44-2. See also § 111-123-1 *et seq.*

[22] *Id.* §§ 11-104-2, 11-104-3. This is not a delegation of the state's powers but is a grant of power concurrent with state powers. The state does not, by such statute, lose any of its original powers with regard to the waters affected. See DuPont v. Miller, 310 Ill. 140 (1923).

[23] ILL. REV. STAT., c. 24, § 11-20-4.

[24] *Id.* § 11-80-12.

emient domain, if necessary, for obtaining sites.[25] If any part of a municipality is subject to overflow, the corporate authority may create an improvement district for the purpose of taking whatever action is necessary to prevent the overflow.[26] A municipality is also empowered to construct, acquire, and operate a sewage system.[27] A special act authorizes corporate authorities to contract with the United States regarding flood control projects.[28]

Counties of the state are given certain powers with regard to the regulation and use of certain waters and water sources. For example, counties bounded by the Mississippi, Ohio, and Wabash Rivers are given jurisdiction over these rivers to the extent that they are bounded by them, and these counties may exercise this jurisdiction concurrently with the opposite contiguous states.[29] Counties bordering on Lake Michigan have jurisdiction over the Lake toward the east to the east line of the state.[30]

Counties are given the power to remove driftwood and other obstructions from natural watercourses within their borders.[31] They also "shall supervise, regulate and control the flow" within their boundaries "of any river, stream or watercourse over and through any and all dams and other obstructions, if any, . . . provided, however, that nothing in this section contained shall empower any county to abridge or in any manner curtail any vested water power rights or other rights."[32]

All counties have the power to prescribe reasonable requirements with respect to water supply, sewage disposal, and street drainage.[33] These requirements must, however, be consistent with standards established by the State Department of Health, and, with regard to street drainage, by the County Superintendent of Highways.[34] Counties also may "regulate the covering or sealing of wells or cisterns."[35]

Municipalities and counties may be able to regulate or restrict the use of water for certain purposes under their zoning powers, particularly by

[25] *Id.* §§ 11-110-1 to 11-110-3.
[26] *Id.* §§ 11-111-1 to 11-115-1. See also §§ 11-113-1, 11-113-2.
[27] *Id.* §§ 11-141-1 to 11-148-7 and 11-139-1 to 11-140-6.
[28] *Id.* §§ 11-115.1-1, 11-115.1-2.
[29] *Id.* c. 34, § 2.
[30] *Id.* § 3.
[31] *Id.* § 430.
[32] *Id.* § 3107.

Another statute (c. 24, § 11-87-3) provided that if a natural or artificial watercourse terminates within the boundaries of a city or village and is non-navigable or has been abandoned by the United States as a navigable body of water, the city may fill in such watercourse for street purposes and may exercise eminent domain to acquire the rights therein of all owners of land adjoining the specified portion of the watercourse.

[33] *Id.* c. 34, § 414.
[34] *Ibid.*
[35] *Id.* c. 34, § 428.

Ill. Laws, 1959, p. 1882 *et seq.*, enables counties contiguous to a county having 1,000,000 or more inhabitants (Cook County) to conduct certain functions and cooperate with other governmental units to prevent pollution and carry out projects for flood control and the conservation, regulation, development and utilization of waterways and water resources.

regulating the use of lands adjoining a watercourse,[36] although no cases directly involving regulation have arisen. They also may serve to guide land and water use under municipal and regional planning powers.[37]

Townships are given the power to construct or purchase and operate waterworks and sewerage systems[38] and to contract with any industrial establishment for the operation by the township of facilities for the abatement or reduction of pollution of waters caused by the discharge of industrial wastes.[39] Townships may also construct and keep in repair and regulate the use of public wells and other public watering places.[40]

District Organizations Created By Permissive Legislation

There are many types of districts authorized by permissive legislation that have incidental powers for regulating the use of water. These include soil and water conservation districts,[1] public water districts,[2] park districts,[3]

[36] See ILL. REV. STAT., c. 24, § 11-13-1 *et seq.* and c. 34, §§ 3151, 3160.

Some possible impacts of the exercise of zoning powers on water use are discussed in Saltoun, *Role of Local Government in Water Law* 1959 WIS. L. REV. 117-141 (1959) and on drainage and flood control in U. of Ill. Committee on Community Problems, Summary of Illinois Laws Relating to Drainage and Flood Control, Sept., 1959. Some ways in which municipal zoning ordinances might alleviate the pollution of a creek are mentioned in Citizens' Help Could Mean No Pollution, Champaign-Urbana Courier, Aug. 19, 1959.

But see Regner v. McHenry County, 9 Ill. 2d. 577 (1956) for a case holding that a county zoning ordinance prohibiting the use of property in a "farming district" for leasing fishing boats and operations of a fishing resort was unreasonable in relation to uses made of surrounding lands for golf, hunting, fishing, and various commercial purposes, and was therefore void as applied to plaintiff's property.

[37] See ILL. REV. STAT., c. 24, § 11-12-4, *et seq.* Under c. 34 § 3051 *et seq.* the Northeast Illinois Metropolitan Area Planning Commission has been formed, involving six counties. See Summary of Illinois Laws Relating to Drainage and Flood Control, n. 36 *supra,* pp. 14-16.

[38] ILL. REV. STAT., c. 139, §§ 160.31 to 160.54.

[39] *Id.* § 160.32.

[40] *Id.* § 39.14.

[1] *Id.* c. 5, § 106 *et seq.* See especially § 127.1 *et seq.* (soil and water conservation, erosion control, and flood prevention), § 128 (power to adopt land-use regulations, including erosion control and surface water conservation and control), and §§ 131-b through 138.1 (formation of subdistricts with power to develop and execute plans and programs relating to any phase of flood prevention and control of erosion, floodwater, and sediment damages).

[2] *Id.* c. 111⅔, §§ 188 to 212. They are authorized to operate waterworks properties ("wells, springs, streams, or other source of water supply . . . and lands, rights of way and easements necessary for the proper development and distribution of a supply of water . . ." § 188). Section 199 gives these districts power to make and enforce all needful rules and regulations in connection with acquisition, construction, improvement, extension, management, maintenance, operation, care, protection, and use of waterworks properties. There are restrictions against the district's maintenance and operation of a water distribution system within any city, village, or incorporated town located in the district. But it may supply water to any municipality, political subdivision, corporation, or private person located outside its limits upon certain conditions.

[3] *Id.* c. 105 § 1-1 *et seq.* See Park Districts, p. 185.

Parks can be created under general enabling legislation. Also, some have been created by special legislation. For convenience, all are discussed together.

mosquito abatement districts,[4] improvement districts,[5] water service districts,[6] surface-water protection districts,[7] drainage districts,[8] forest preserve districts,[9] and conservation districts.[9a]

Districts that may have more extensive powers for regulating the use of water include river conservancy districts,[10] and water authorities.[11] Separate discussions of these districts are included below.

River conservancy districts.[12] An act of 1925, with later amendments, authorizes the creation of river conservancy districts. It may be utilized whenever the unified control of a lake, or of a river system, or of a portion thereof, shall be deemed conducive to the prevention or carrying out of a number of things concerning water and soil conservation, protection, or development.

The act specifies 10 general purposes for which a district may be organized:[13] 1) prevention of stream pollution; 2) development, conservation, and protection of water supply, and provision of domestic, industrial or public water supplies; 3) preservation of water levels; 4) control and prevention of floods; 5) reclamation of wet and overflowed lands; 6) development of irrigation; 7) conservation of soil; 8) collection and disposal

[4] *Id.* c. 111½, §§ 74 to 85a. Section 80 grants these districts power to abate as a nuisance all stagnant pools of water and other breeding places for mosquitoes, flies, or other insects within the district, and to obtain by condemnation or otherwise the necessary property rights for doing so.

[5] *Id.* c. 24, § 11-111-1 *et seq.* In a unique method of organization, municipalities are authorized to create such districts within their borders (see § 11-111-1), for the purpose of preventing overflow.

[6] *Id.* c. 111⅔, §§ 213 to 222.1. Authorized to be formed in areas not included in a municipality (§ 213), and empowered to sell water either within or without the district, and to pass all necessary ordinances, rules, and regulations for the proper management and conduct of the business of the district for carrying its objects into effect (§ 217). At least one such district has been formed, the Belmont Highwood Water Service District in Du Page County. (Based on 1960 abstracts of valuations of the Property Tax Division, state Dept. of Revenue.)

[7] ILL. REV. STAT., c. 42, §§ 448 to 471. See Surface Water Protection Districts, p. 179.

[8] *Id.* §§ 1-1 to 12-24. See Artificial Watercourses Distinguished, p. 56, and Drainage Districts, p. 174.

[9] *Id.* c. 57½. Such districts may acquire lands along watercourses or elsewhere to control drainage and water conditions and preserve forested areas acquired or to be acquired as preserves. *Id.* § 5. See *Aspects of Land and Water Use in the Forest Preserve District of Cook County, Illinois,* J. SOIL AND WATER CONSERVATION, Nov., 1957. See also Department of Public Works and Buildings, p. 144, regarding the District's cooperation with that department in improving low-flow and boating conditions in the Des Plaines River in Cook County. It also has cooperated with the Chicago Sanitary District and state Sanitary Water Board in efforts to reduce pollution in the River.

[9a] *Id.* c. 57½, §§ 101 to 117. Such districts may be formed by petition in counties with less than 500,000 population that are not already organized as forest preserve districts. They may acquire, preserve, and maintain wildland or other open land and scenic roads or paths, or rights thereto. They also may protect natural streams or water supply, conserve soils, wetlands, and shores, afford public recreation, and have certain other purposes.

[10] ILL. REV. STAT., c. 42, §§ 383 to 410.

[11] *Id.* c. 111⅔, §§ 223 to 250.

[12] *Id.* c. 42, § 383 *et seq.*

[13] *Id.* § 383.

of sewage and other public liquid wastes; 9) provision of forests, wildlife areas, parks, and recreational facilities; 10) promotion of public health, comfort, and convenience.

The title of the act[14] states that it is intended to authorize the formation of a district with powers to effectuate river and flood control, drainage, irrigation, conservation, sanitation, navigation, recreation, development of water supplies, and protection of fish life.

It seems, therefore, that the act is rather broad and could be utilized for many purposes connected with soil and water conservation, utilization, and protection.[15]

Powers and duties of the board of trustees. The board of trustees, which is the governing body of the river conservancy district, has full power to pass all necessary ordinances, rules, and regulations for the proper management and conduct of the business of the district in effecting its objects and purposes. The trustees may appoint engineers, attorneys, managers, a treasurer, agents, clerks, and assistants for such period and under such bond as they deem necessary. They fix the compensation and prescribe the duties of all officers and employees of the district.[16]

The board of trustees is further given these express powers in order to accomplish the purposes of the district:[17]

1. To clean out, straighten, widen, alter, deepen, or change the course or terminus of any ditch, drain, sewer, river, watercourse, pond, lake, creek, or natural stream in or out of the district.

2. To fill up any of the above that have been abandoned or altered.

3. To concentrate, divert, or divide the flow of water in or out of the district.

4. To construct and maintain main and lateral ditches, sewers, canals, levee dikes, dams, sluices, revetments, reservoirs, holding basins, floodways, pumping stations, and siphons, and any other works and improvements deemed necessary to construct, preserve, operate or maintain the works in or out of the district.

5. To construct, or alter bridges, roadways and streets, fences, buildings, railroads, canals, or other improvements in or out of the district, and to remove or relocate any of the above except bridges, roadways, and streets.

6. To construct works across, through, or over any public highway, canal, railroad right of way, track, grade, fill or cut, in or out of the district.

7. To hold, encumber, control, acquire by donation, purchase, or condemnation, and to construct, own, lease, use, and sell any real and personal property, easement, *riparian right,* railroad right of way, canal, cemetery, sluice, reservoir, holding basin, mill dam, water power, wharf, or franchise in or out of said district "for right of way, holding basin or for any

[14] See ILL. LAWS, 1959, at p. 20.

[15] A discussion of district activity under this act is included later.

[16] ILL. REV. STAT., c. 42, § 388.

[17] *Id.* § 392a.

necessary purpose," or for material to be used in constructing and maintaining works and improvements.

8. To replat or subdivide land, open new roads, streets, and alleys or change existing ones.

9. To supervise, regulate, and control within the district the flow of the waters of any river, stream, or watercourse over and through any and all dams and other obstructions existing or later constructed in, upon or along any such body of water; but this does not give them the power "to abridge or in any manner curtail any vested water-power rights or other rights."

10. To construct and efficiently maintain fishways through or over any dams or other obstructions to the flow of any river, stream, or watercourse within the district.

11. To acquire enough lands contiguous to its reservoirs for recreational grounds and to construct buildings and improvements for this purpose and use the area for recreational purposes, if it is found to be conducive to the public health, comfort, or convenience, and so long as this does not interfere with the drainage or other use of the reservoir for the purpose of controlling, regulating, and augmenting the flow of rivers, streams, or watercourses of the district.

12. To exercise the power of eminent domain when the trustees authorize improvements and when the necessary property cannot be acquired by purchase or agreement.[18] Land may be acquired either within or without the district, for any purposes of the act.[19]

13. To build necessary works to supply water to municipalities, and to corporations and individuals in unincorporated areas, within the district. The river conservancy district is obligated to build works where necessary and to sell water to such municipalities, corporations, and individuals by meter measurement at rates that will at least defray all fixed, maintenance, and operating charges. Any profits can be used only to extend or improve the waterworks.[20]

14. To construct and maintain its works along or under highways and other public lands of the state, upon approval by the Governor, but so as not to incommode the public use, and subject to the authority of the United States over public waters.[21]

15. To prevent pollution of any waters from which a water supply may be obtained by any municipality or individual within the district, with right to provide a police force, for the purposes of the act, over the territory within the district and over the territory outside the district included within a radius of 15 miles from the intake of a water supply.[22]

[18] *Id.* § 393.
[19] *Id.* § 394.
[20] *Ibid.*
[21] *Id.* c. 42, § 401.
[22] *Id.* § 403. Such police force, when acting for such purposes within a municipality, shall work with the police force of the municipality. The authority of the Sanitary Water Board is not superseded by these provisions. *Id.* §§ 403, 409.

16. To adopt and enforce ordinances "for the necessary protection of sources of water supply."[23]

17. To let contracts.

18. To cooperate and enter into agreements with the proper agencies of the United States Government, municipal corporations of the state, political subdivisions, and persons, and associations for any proper purpose under the act.[24]

However, there are restrictions against the furnishing of water power or electricity except for the operation of the district's own works and instrumentalities.[25]

The board of trustees has a duty to proceed diligently to the fulfillment of all the purposes and objects of the act, subject to the proper use and disposition of available funds.[26] All rights and property of the district are to be used to promote the welfare of the district and its inhabitants, and to promote the safest, most economical and reasonable use of the waters, and to pay the cost of the construction and maintenance of improvements.[27] But before any work is commenced, the plans shall be submitted to, and approved by, the Department of Public Works and Buildings and the State Sanitary Water Board.[28]

Notwithstanding the district's general power to adopt ordinances, rules, and regulations, any regulatory powers of such districts regarding water use, other than to control pollution, may have to be carried out within the framework of existing laws and subject to riparian rights. Rights to use or alter watercourses so as to impair riparian rights apparently would need to be acquired by donation, purchase, or condemnation, although, subject to such requirements, the district apparently may control the use and disposition of the waters it develops or of which it obtains control. It also seems that such a district may have no broad regulatory powers over water use but that such powers may be limited to rather specific purposes, including pollution control and supervision of the flow of water through dams on watercourses within the district.

It is problematical whether the statutory authority to "adopt and enforce ordinances for the necessary protection of sources of water supply," mentioned above, relates to anything more than protection from pollution. "Preservation of water levels" was added in 1959 to the foregoing list of general purposes for which districts may be organized.[29] The effect of this provision also is problematical.

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[23] *Id.* § 394.

[24] *Id.* § 409a.

[25] *Id.* § 392(a). These restrictions also apply to the sale or other disposal of the impounded waters, but such waters may be sold to public or private users "when no other source of water is readily and conveniently available and when such sale does not substantially interfere with the other purposes of this act."

[26] *Id.* § 407.

[27] *Id.* § 396.

[28] *Id.* § 408.

[29] ILL. LAWS, 1959, at p. 20. At this time the act already included the above-mentioned specific provision regarding the flow of water through dams.

Financial powers. The district is empowered to obtain money in the following ways:

1. Money may be borrowed for corporate purposes and bonds issued therefor, not to exceed 5 percent of the valuation of taxable property in the district according to the last assessment for state and county taxes. These bonds are required to be matured within 20 years. An election must be held to determine if bonds will be issued. Notice must be given and a favorable majority vote is necessary to authorize issuance.[30]

2. A direct tax levy, sufficient to pay the interest and retire the bonds within 20 years, may be authorized by the board of trustees at the time of or before incurring the indebtedness.[31]

3. Other taxes may be levied not to exceed .083 percent annually of "full, fair cash value" of the taxable property within the district as equalized or assessed by the state Department of Revenue. Such annual taxes may be increased to .375 percent in districts having a population of 25,000 or more and such annual tax levy may be increased to .75 percent in districts having a population less than 25,000, if it is authorized by a referendum.[32]

4. Special assessments, up to the amount which the property will be benefitted by an improvement, may be levied on property within the district even though part of the works are outside the district.[33] Assessments may be divided into as many as 20 annual installments, the unpaid amount to bear interest at 6 percent,[34] and bonds may be issued to anticipate the collection of the unpaid installments.[35]

5. Revenue bonds may be issued as necessary.[36]

Organization of district. A petition addressed to the circuit judge of the county that contains all or the largest portion of the proposed district must be signed by at least 1 percent of the legal voters within the proposed district, and filed in the county clerk's office. It must contain a general description of the boundary of the proposed district and its name. This description need not be the legal description for the area. Also, the territory included does not need to be contiguous if it is so situated that organization as a single district will promote public health, safety, convenience, or welfare. In addition, the petition must request that the question of organization be submitted to the legal voters of the territory included.

The circuit judge must then call to his assistance the circuit judges of all the counties in which portions of the proposed district are located. The circuit judges act as a board of commissioners with power, after a

[30] Ill. Rev. Stat., c. 42, § 397.
[31] *Id.* § 400.
[32] *Ibid.*
[33] *Id.* c. 42, § 404.
[34] *Id.* § 405.
[35] *Id.* § 406.
[36] *Id.* §§ 398.1 to 398.4.

hearing, to determine the district boundaries.[37] The hearing is set by order of the judge who was petitioned, not less than 60 days after his order. He must give notice of the time and place of the hearing by publishing it in a daily or weekly newspaper of general circulation within the territory, or, if there is no such newspaper, by posting 10 notices in as many conspicuous public places as possible at least 20 days before the hearing.

The judge who was petitioned presides at the hearing. Anyone in the proposed district may present his views regarding the location and boundaries of the district. A majority of the board must agree to a final determination of the location of the boundaries of the district. Their determination (along with provision for holding an election) is by order made a part of the county court records of the counties situated wholly or partially within the district.

The judges then submit the question of organization and establishment of the proposed district at an election within 60 days after the order fixing the boundaries. Notice must be given at least 20 days before the election, in the same manner as notice was given for the hearing discussed above. The notice must specify 1) the purpose of the election, 2) a description of the district, and 3) the time and place of the election.[38]

If a majority of the votes cast are in favor of organization, the district is deemed organized from the time the election results are recorded in the circuit courts. The district is a municipal corporation with the name proposed in the petition, and the courts of the state will take judicial notice of its existence.[39]

Provision is made for adding territory to the existing district. The procedure, from the filing of the original petition through the annexation, is similar to the procedure followed in organizing the original district.[40]

The district government.[41] As noted earlier, the district is governed by a board of trustees. The trustees cannot be financially interested in any contract money paid by the district, but may own land in the district.[42] Their number and manner of appointment depend upon the number of municipalities within the district with a population of over 5,000. The board determines and names each such municipality in its statement finding the results of the election, based on the last preceding federal census

[37] If the proposed district lies only in one county, the circuit judge for that county acts alone as the board of commissioners. ILL. REV. STAT., c. 42, § 383.

[38] The board of commissioners has the power to provide for voting places, judges, clerks, and to prescribe the voting procedure. Each legal voter in the proposed district is entitled to vote by ballot issued by the county clerk of the county where the petition was filed. The ballots are distributed, returned, and canvassed by the county clerks in their respective counties, and a copy of the return and canvass is filed with the county clerk of the county in which the petition was filed. This county clerk ascertains the results of the election and certifies it to the board of commissioners. The judges make a statement of the results and enter it in the records of their respective county courts. ILL. REV. STAT., c. 42, § 383.

[39] *Id.* § 384.

[40] *Id.* § 385.

[41] *Id.* § 386a.

[42] *Id.* § 386b.

figures, and if there are no such municipalities, its statement will indicate this.

If the district has one or more municipalities having 5,000 or more population, the trustees are appointed as follows:

1. If only one such municipality, one trustee is appointed from the municipality, one from each county lying wholly within the district from areas outside the municipality, and two are appointed at large. If the district is entirely within the muncipality, three trustees are appointed from the municipality and two are appointed at large.[43]
2. If more than one municipality, one trustee is appointed from each municipality, one from the district outside the municipalities, and two are appointed at large. If the district is entirely within the municipalities, two trustees are appointed from the municipality having the largest population, one from each of the other municipalities, and two are appointed at large.

If there are no municipalities of over 5,000 within the district, five trustees are appointed at large.

The appointment of trustees from municipalities is made by the presiding officer of the municipality, and those from outside municipalities and at large are appointed by the circuit judges of the counties within which any portion of the area lies, acting together.[44]

The initial trustees serve one, two, three, four, and five years from date of appointment and must draw lots to determine how long each will serve.[45] Successor trustees serve for five years. If a vacancy occurs the circuit judges appoint a trustee to fill the unexpired term.[46]

The trustees act as a board, which is the corporate authority of the district, and which exercises all the powers and controls all affairs and property of the district. Immediately after their appointment and at their first meeting in May of each year thereafter, the trustees elect one of their number as president and one as secretary. The board may authorize a trustee to receive a salary from the district not to exceed $500 per year.[47]

Activity regarding river conservancy districts. At least the following six river conservancy districts had been organized in the state by 1962:

1. Addison Creek River Conservancy District.
2. Henderson River Conservancy District.
3. Kankakee River Conservancy District.
4. Lusk Conservancy District.
5. Rend Lake Conservancy District.

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[43] In such cases, while the trustees at large must reside within the district, they are appointed by the circuit judge as described below. ILL. REV. STAT., c. 42, § 386a.

[44] Initial appointments are to be made within 20 days after the election results are determined.

[45] If there are more than five trustees, the additional ones serve one, two, three years, etc., and must draw lots to determine how long each will serve.

[46] ILL. REV. STAT., c. 42, § 387.

[47] *Id.* § 388.

6. Saline Valley Conservancy District.[48]

The Rend Lake Conservancy District was created in 1955, covering all of Franklin County and six townships in Jefferson County. Three cities of over 5,000 population (Mt. Vernon, Benton, and West Frankfort) are located within its limits. Multiple-purpose water-use planning has been conducted, including plans for a proposed multiple-purpose reservoir and lake (with a shoreline more than 200 miles in length) to be built on Big Muddy River near Benton. A description of the district's history, activities, and plans is included in Appendix I. The proposed reservoir would provide a source of municipal, industrial, and agricultural water supply, recreational facilities, flood protection, and minimum downstream low-flows, and would abate pollution, and serve other purposes. The state Department of Public Works and Buildings, Division of Waterways, was authorized by legislation to make an engineering survey of the proposed dam and reservoir.[49] In 1959 the state enacted a law authorizing the appropriation of $150,000 to the district to assist it in acquiring lands in the area necessary for construction of the proposed lake.[50]

In 1961 the state authorized the appropriation of 1 million dollars to cover a portion of the cost of acquiring and developing land for the building of Rend Lake, which may be expended on the Governor's written approval.[51] The Governor indicated that his approval would be contingent upon the availability of federal funds for the project.[52] The district applied for federal assistance under the Area Redevelopment Act of 1961,[53] and

[48] Note that the title of the last three districts, as reported to the authors, omits the word "river." The title of the act refers to river conservancy districts but its stated provisions (including its instructions as to the form of ballot to be used in referendums) usually omit the word "river."

Attempts to create at least two river conservancy districts have been invalidated by the courts. The Fox River Conservancy District (Cook, Kane, Kendall, La Salle, McHenry, and Lake Counties) was invalidated in People v. Blencoe, Circuit Court of Kendall County, Oct., 1927. The Momence Conservancy District (Kankakee County) was invalidated in People v. Astle, 337 Ill. 253 (1929) on the ground that the boundaries were indefinite as stated in the notice of election, on the ballot, and in the county court order fixing its boundaries. The trustees of the district were preparing to construct a dam across a river when the suit was initiated.

Attempts to create at least three additional river conservancy districts have been made in Illinois. Proposed Du Page County and Crystal Lake (in McHenry County) river conservancy districts failed to obtain the required vote in 1958. An earlier proposed petition to create such a district in Effingham County was not filed because of opposition. However, an Effingham Water Authority was created later (see later discussion of Effingham Water Authority). In addition, a commission for the development of the Fox River has been established as an advisory commission. The improvement work, being carried on by the Department of Public Works and Buildings, is described earlier in the description of that Department's functions.

[49] See the Division's Report of Survey, Rend Lake Reservoir, Jefferson and Franklin Counties, 1957.

[50] Ill. Laws, 1959, p. 1040.

[51] Ill. Laws, 1961, p. 3787. Such authorization was repeated by Ill. Laws, 1963, p. 3085.

[52] According to letter from Howard Mendenhall, manager of the District, dated Aug. 10, 1961.

[53] 75 Stat. 47, 42 U.S.C.A., § 2501, *et seq.*

in October, 1961, the Rend Lake project became the first technical assistance project under this Act.[54] A $45,000 study grant was made to the Corps of Engineers, U. S. Army, for a survey of the proposed Rend Lake to determine its feasibility and estimated cost and recommend federal, state, and local sharing arrangements. The Area Redevelopment Administration, U. S. Department of Commerce, has indicated that this project could promote the development of a large area that is suffering from the decline of the coal industry.

The Corps of Engineers has completed this study and has approved the proposed project to be constructed and operated by the Corps, and the project has received congressional approval.[55] As thus approved, the proposed Rend Lake dam and reservoir would be operated for flood control, water supply, pollution abatement, conservation of fish and wildlife, and recreation. The total cost has been estimated at $35,500,000, of which $29,469,000 would be federal costs.[56] The non-federal costs of $6,031,000 would include reimbursement by local water users. Certain areas would be allocated as state parks and game management areas. The conservancy district would be responsible for management of all remaining lands and would be required to provide adequate access along the perimeter of the reservoir for the general use of the public. The project includes federal plans for public-use facilities along the reservoir. In addition, the U. S. Fish and Wildlife Service would operate two small impoundments in the upper arms of the reservoir as a waterfowl refuge.

The Area Redevelopment Administration has allocated $550,000 to raise a portion of Interstate Route 57 to preserve the reservoir site, and $450,000 for pre-construction planning and design.[57] This Administration also has approved the expenditure of $9,500 for a study to determine the engineering and economic feasibility of establishing an inter-community water treatment and distribution system to serve 36 communities in the area, noting that the majority of these communities have been using untreated water and all have lacked adequate industrial water. The District will expend up to $20,000 for this study.[58]

The Henderson River Conservancy District was created in 1956. Its purpose was to form a district of local interests to secure federal flood-prevention measures and to build a canal to divert the Henderson River to the Mississippi River at a point 21 miles above the mouth of Henderson River.

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[54] See Federal Matters (Area Redevelopment Administration), p. 255.

[55] Congress authorized the project substantially in accordance with the recommendations of the Chief of Engineers. 76 STAT. 1189, Oct. 23, 1962.

[56] Plus $88,000 annual operation and maintenance costs, of which $79,000 would be Federal costs. Further details regarding the project as proposed by the Corps of Engineers are included in Appendix I.

[57] Based on Area Redevelopment Admin. News Release, June 21, 1962, ARA 62-138.

[58] Based upon Area Redevelopment Admin. News Release, Jan. 15, 1963, ARA 63-9.

The purpose of this canal, which had not yet been built in 1961, was to prevent the flooding of approximately 26,000 acres of land and two State of Illinois highways, and also to prevent the entry of flood waters into three drainage districts (Districts 1, 2, and 3) of Henderson County, Illinois. Some federal funds had been appropriated, and local interests had been searching for finances to handle their share of the expense.[59]

The Addison Creek River Conservancy District also was created in 1956. As of January, 1961, its boundaries encompassed nearly all of the City of Northlake and some adjacent land to the east, later annexed to the District. The District dredged Addison Creek, which flows through the city, and kept it clean so as to prevent flooding. A yearly tax levy of about $25,000 was made for these purposes and for sharing the cost of a bridge with the city. The District had tentative plans for a bond issue of about 1½ million dollars to finance the straightening, deepening, and widening of the Creek, to build necessary bridges, and to do other necessary flood prevention work.[60]

The Kankakee River Conservancy District, created in 1953, comprises about 10 square miles, from the eastern boundary of Momence to the Indiana state line. The District has approved a general plan of improvement for this part of the upper basin of the Kankakee River, proposed by the Kankakee River Preservation Association, an association of interested persons. The plan has been submitted to a number of state agencies in Illinois and Indiana and to the U. S. Corps of Engineers for their consideration. The Corps, the Illinois Division of Waterways, Department of Public Works and Buildings, and the Indiana Flood Control and Water Resources Commission were making surveys of the watershed in 1961.

In addition to various channel improvements, the proposed plan involved construction of a flow-control dam at the western boundary of Momence. The dam would be opened during floods to reduce damage, and closed during lowflow periods to create a regulated pool and water levels for boating, recreation, and wildlife and to prevent the lowering of water-table levels beneath agricultural lands.

The District could acquire necessary rights of way for the work, and would cooperate with interests above and below the District. While awaiting completion of the surveys, the District had been clearing out trees, patrolling the River, and checking on pollution.[61]

The Lusk Conservancy District, created in 1961, comprises the watershed of Lusk Creek in Pope County in southern Illinois and embraces about 66,000 acres. A primary purpose of this district was to facilitate the

[59] Based on letter from Bufford W. Hottle, Jr., Monmouth, Ill., attorney for the District, dated July 1, 1961.

[60] See Federal Matters, p. 230, regarding the Corps of Engineers. Based on letter dated Jan. 26, 1961, received from Everett Lewy, Chicago, attorney for the District.

[61] Based on letter dated Dec. 18, 1961, from Neil Metcalf, secretary of the District, and attached plan proposed by the Kankakee River Preservation Assn. Mr. Metcalf was president of the Association when its plan was formulated.

proposed construction and development of 3,600-acre Shawnee Lake as a recreation center within the boundaries of the Shawnee National Forest.[62]

The Saline Valley Conservancy District, also created in 1961 and located in southern Illinois, embraces portions of Saline, Gallatin, Hardin, Williamson, Hamilton, and White Counties in the vicinity of the Saline River and the Shawnee National Forest. The general purpose of the District is to promote the development of the Saline watershed. As of September, 1962, the District was making plans for channel and drainage improvements and for the construction of multiple-purpose reservoirs or lakes. A navigation channel up the Saline River to Harrisburg, that would promote industry was envisaged. In 1958, Congress authorized channel improvements by the Corps of Engineers, dependent on certain local contributions and necessary congressional appropriations.[63] In 1962 the Congress modified this authorization, to allow the Chief of Engineers to adjust cash contributions required of local interests to an amount recommended by the Secretary of Army and approved by the President.[64]

Water authorities. Under an act of 1951, as later amended, a water authority may be formed as follows: At least 500 legal voters must petition the circuit court of the county where the major portion of the authority will be located, stating its name, defining boundaries, and requesting submission to the voters. The area must be contiguous and must contain at least 500 legal voters. A hearing is held, after proper publication of notice, in which anyone is entitled to be heard. The judge then must enter an order fixing the boundaries of the authority and submitting it to a vote. An affirmative majority of the votes cast establishes the authority.[65]

A board of trustees, consisting of at least three members (at least one member from each county within the authority) shall be appointed by the circuit judge for three-year terms, to expire alternately.[66] This board must then organize and select one of its members as chairman and one as secretary. The members must also select a treasurer, an engineer, an attorney, and other employees they feel necessary.[67] Trustees cannot receive more than $500 per year compensation and must furnish a bond of $5,000.[68]

[62] The District was to provide, if needed, a legal entity to receive and administer any public funds provided for planning, building, and developing the Lake, according to letter dated Aug. 22, 1961, from Paul L. Trovillion, President, Southern Illinois Recreation Council. Sponsors of the District's creation included the Shawnee Hills Recreation Assn. (which is a member of the Southern Illinois Recreation Council) and the Pope-Hardin Soil Conservation District.

[63] See 72 STAT. 312 (1958); also see WATER RESOURCES DEVELOPMENT BY THE U.S. ARMY CORPS OF ENGINEERS IN ILLINOIS, U.S. Army Eng. Div., N. Cent., Chicago, Jan. 1, 1961, at p. 49.

[64] 76 STAT. 1189.

[65] ILL. REV. STAT., c. 111⅔, §§ 223, 224.

[66] *Id.* § 225.

[67] *Id.* § 226.

[68] *Id.* § 227.

Provision is made for annexation of territory by petition of a majority of the landowners in the area concerned. A border area of 20 acres or more may be disconnected by petition of all the landowners in the area concerned.[69]

The board has the following regulatory powers:

1. To inspect and require registration of all wells and other withdrawal facilities and require information from the owners or operators concerning supply, withdrawal, and use.

2. To require permits for all additional wells or withdrawal facilities or for the deepening, extending, or enlarging of existing ones; also to require plugging of abandoned wells and repairing of any wells or withdrawal facilities to prevent water loss or contamination.

3. To promote the common welfare by reasonably regulating the use of water, and, during actual or threatened shortage, to establish limits upon or priorities as to use of the water. Appropriate consideration is to be given to any user who reduces his groundwater usage or takes care of increased requirements by developing surface water sources. Consideration also is to be given to the average amount of present withdrawals, relative benefits or importance of use, economy or efficiency of use, and any other reasonable differentiation.

It is problematical whether the regulatory authority described above would be interpreted to be applicable to surface watercourses as well as to groundwater.

The board also is authorized to acquire property or property rights within or without the boundaries of the authority by purchase, lease, condemnation, or otherwise, and to construct and operate any facilities necessary to insure adequate water supplies for the present and future. Any proposed facilities must be approved by the Sanitary Water Board and operated according to its rules and regulations. The trustees may sell their water to municipalities or public utilities that operate water-distribution systems, either within or without the authority.

4. To levy and collect a property tax not to exceed .08 percent of assessed valuations and to issue bonds, at not more than 5 percent interest payable in not to exceed 20 years, the total amount of such bonds not to exceed .5 percent assessed valuation, to be repaid by an additional property tax sufficient to cover the principal and interest.

5. To restrain in the circuit court any violation of any of the authority's regulations and to subject any violator to a fine of not to exceed $50 for each violation.[70]

The board may issue and sell revenue bonds to pay expenses of organization and to acquire property. These are payable solely from revenue derived from the operation of the water supply or other waterworks properties of the authority, and are not an indebtedness of the authority payable from taxes.[71]

[69] *Id.* § 232.
[70] *Id.* § 228.
[71] *Id.* §§ 234 to 236.

Any person, firm, corporation, or agency of the public that is diverting or obtaining water at the time of the establishment of an authority may continue to do so from the same source up to the rated capacity of its existing equipment. This would seem to give prior users prior rights, unlike the common-law principles applicable to Illinois watercourses and groundwater, discussed earlier. Although the statute states that such prior users shall have "the right" to so continue their use, it may be questioned 1) whether this would have the effect of legalizing all prior and continuing use even though it may have been previously clearly unlawful, and 2) whether this has any effect against anyone besides the authority. At any rate, the act expressly declares that the provisions of the act do not apply to water used for agricultural purposes, farm irrigation, or water used for domestic purposes where not more than four families are supplied from the same well or other immediate source.[72]

By a 1957 amendment, special regulatory powers over areas acquired for reservoir purposes were added.[73] These include the power to regulate or prohibit fishing, boating, and swimming in the reservoir and to acquire, lease, and zone adjoining land to protect it from pollution or other injury. Ordinances to prevent pollution of the watershed supplying the reservoir may be applied against lands that are not held by the authority for reservoir purposes but are located within the watershed that feeds the reservoir and within "5 miles upstream from the headwaters of its reservoir."[74]

The decisions of the board are subject to review under the Administrative Review Act.[75]

Effingham Water Authority. In 1955 a water authority was created to build a reservoir lake primarily to supply the City of Effingham with water. A major reason for creating the Authority reportedly was a restriction on the city's ability to issue additional revenue bonds.[76]

Previous attempts to create a river conservancy district and a public water district had failed. The petition to create a river conservancy district was never filed, reportedly because the rural areas in the county

[72] *Id.* §§ 229, 231.

[73] *Id.* §§ 237 to 250.

[74] In this connection, recall that the applicable act expressly declares that its provisions shall not apply to water used for agricultural purposes, farm irrigation, or water used for domestic purposes where not to exceed four families are supplied from the same well or other immediate source. This seems intended primarily to refer to an authority's powers to regulate the use of groundwater. Its effect on an authority's powers to regulate the use of water impounded in its own constructed reservoirs is problematical.

[75] ILL. REV. STAT., c. 111⅔, § 230.

[76] See J. WM. EVERHART, EFFINGHAM SOLVES ITS WATER SHORTAGE PROBLEM, Effingham Water Authority, Feb. 14, 1958, pp. 8, 33.

At p. 8, this publication states that "When the city sold bonds to purchase the local water utility, it was restricted from issuing additional revenue bonds until earnings, from the sale of water for a period of one year, were equal to one and one-third times the annual requirements on its outstanding $1,100,000 issue. It was impossible to increase water sales because the city's supply of water was insufficient to meet current demands. To circumvent this situation, it was necessary for the city to resort to some other unit of local government, to deal with the problem."

opposed the issuance of general obligation bonds. A proposal to create a public water district having authority to issue only revenue bonds also received an unfavorable response.[77] The boundaries of the Effingham Water Authority include the City of Effingham and an area extending about one mile around the city. The lake to provide a water supply was created by constructing a dam on Blue Point Creek, approximately two to three miles outside the Authority's and the city's boundaries.

The trustees of the Authority proceeded to acquire title to some 735 acres of land to be inundated and an additional 1,200 to 1,300 acres of shoreline property, to protect the lake from erosion and pollution, to provide residential and recreational facilities, and to safeguard the Authority against claims for flood damages.[78] Flowage easements, rather than full title, were acquired on a small part of these lands. The abandonment and rerouting of some roads also had to be worked out.[79] Provisions also were made to provide roadway easements over lands owned by others to permit access to all shoreline properties.

In 1956 the City of Effingham and the Authority passed ordinances to authorize the city and the Authority to contract for the city's purchase of water from the Authority. The Authority contracted to deliver to the city sufficient water for full operation of its waterworks system and agreed not to sell water to any other customer without the city's consent.[80]

The dam and reservoir lake (Lake Sara) have been built and are in operation. The lake has a 27-mile shoreline. Water released from the reservoir flows by gravity about three-fourths mile downstream to the intake of the city's pumping station on the Little Wabash River and has been used as a supplemental supply in the late summer when the river flow has been inadequate to replenish the city's reservoir.[81] The project was financed primarily through the sale of revenue bonds (amounting to $1,200,000), without federal or state aid.[82]

By July, 1961, about one-third of the land around the lake had been subdivided and was being leased for residential purposes (for 99-year periods). A development plan and zoning ordinance have been enacted and all leases are made subject to this ordinance.[83] (A copy of a sample

[77] *Id.* pp. 6, 7.

[78] $75,000 in general obligation bonds were issued to help finance the acquisition of necessary options. These bonds were retired from money later derived from revenue bonds. Condemnation suits were filed against some landowners but such cases were settled out of court because of the time such condemnation would have required.

[79] The rerouting or protection of oil pipelines and utility lines also was involved, and a bridge was erected.

[80] Effingham Solves Its Water Shortage Problem, note 76 *supra*, p. 25.

[81] *Id.* pp. 27, 29, and 32. (Relevant information also was supplied by D. A. Niccum, secretary of the Authority.) Recall questions regarding rights to such released waters while enroute to the point of withdrawal, discussed under Developed or Added Waters, p. 52.

[82] *Id.* p. 32. The interest rate payable on the revenue bonds is reportedly 3¾%.

[83] The zoning ordinance has been applied only to the lands adjoining the lake owned by the Authority (except for one small tract surrounded by the Authority's lands that is owned by the developer who is leasing its lands). Letters from D. A. Niccum, secretary of the Authority, dated July 12, and Nov. 15, 1961.

lease form, which incorporates relevant portions of the zoning ordinance, is included in Appendix K.) The leases also are made subject to the terms of the Authority's prior agreement with the City of Effingham pertaining to the use of the water from the lake.[84] The leases provide that the lessee (called "custodian"[85]) shall have the right to use the lake "for boating, swimming, and fishing, subject, however, to the rules and regulations, fees and licenses of the Authority which are now or may hereafter be in full force and effect," and also "the right of use of water from said Lake, when such water is for the use of the Custodian and not for sale to others."[86] Leases further provide that the Authority reserves the right of ingress and egress over the leased premises to gain access to the lake in connection with its maintenance and operation.[87]

In addition to certain specific requirements, the leases provide that the custodian shall comply with the Authority's sanitary regulations and agrees that he will use and occupy the premises so as to "in no way contaminate the water of the lake."[88]

Three classes of zones and zoning restrictions are applicable, two for single-family residences and one for cottages.[89] It is further provided that the Authority may permit land to be used for public parks, golf courses, boat launching areas, storage, servicing, and repairing of boats, for small recreational areas in subdivisions, churches, schools, and for other uses that may be needed to provide services to the area over which the Authority has ownership or control.[90]

Among other things, these regulations include specifications regarding the construction of piers, docks, and boathouses. For example, swimming piers or platforms shall not extend more than 10 feet from the shore at normal water level.[91]

The Authority also has established a commercial area with a public beach and amusements, and has entered into contracts for use of the area for swimming, recreation, motel, and related purposes.[92]

Following are discussions of selected types of districts which have

[84] See art. 7 of the lease form.

[85] Note in this connection the lease form's statement that the leasing of the lake's shore land will aid in protecting the lake from pollution, undue erosion, and other injury by promoting forestation and other suitable vegetation and the improvement, care, and maintenance of the premises.

[86] See arts. 7 and 8 of the lease form.

[87] See art. 13 of the lease form. This also includes certain reservations and provisions for utility-lines purposes.

[88] See arts. 4 and 5 of the lease form.

[89] See art. 2 and art. 15 *et seq.* of the lease form. These classes and the applicable zoning regulations are described in the lease form.

[90] See art. 16, zone 1 (B) of the lease form.

[91] See art. 16, zone 1 (K) of the lease form. Note that art. 16, zone 1 (Y) provides that such restrictions ordinarily shall remain in force for 25 years and shall be automatically extended for 10-year periods unless 60 percent of the custodians in any subdivision vote to change them, with approval by the Authority.

[92] Letter from D. A. Niccum, secretary of the Authority, dated April 17, 1962.

incidental powers and functions regarding or related to the regulation of water use. They do not appear, however, to have as extensive powers to regulate water use as do river conservancy districts and water authorities.

Drainage districts. Drainage districts may be formed to construct, maintain, or repair drains or levees, or to engage in other drainage or levee work for agricultural, sanitary, or mining purposes.[93] A survey in 1937 indicated that 1,541 districts had been organized covering a total of 5,454,000 acres. Only 468, or about 30 percent, of these districts had been active in the 12-year period preceding the survey.[94]

In general, land may not be included in a drainage district nor be taxed by the district against the owner's will unless it can be shown that his property will be materially benefited.[95] But the organization and operation of a drainage district may force unwilling landowners in the district to pay taxes to help pay for a drainage or levee system for the area, and also to submit to the exercise of eminent domain and certain other powers for proper purposes, if their lands will be benefited.[96]

In a case in 1943 involving a drainage and levee district, the court said:

> . . . one of the purposes of a drainage district is to overcome natural conditions, including the common law right as to dominant and servient lands. The rights of the land owners within the district are subject to the provisions of the statute if they take advantage of the drainage afforded by such district . . . (or) when the upper and lower owners unite in forming a district for obtaining the benefits to be derived from the removal of water by means of drains or levees . . .

The dispute, however, was limited to the question of assessment of taxes for proposed improvements by the district.[97]

In another case[98] the court indicated that, by adopting the drainage system provided by a drainage district, a landowner could not contest the validity of its tax assessment, on the ground that the district would violate his common-law drainage rights in carrying out a proposed improvement

[93] Ill. Rev. Stat., c. 42, § 3-1.

[94] Survey by the Illinois Tax Commission. See H. Hannah, Illinois Farm Drainage Law, U. Ill. Agr. Ext. Cir. 751 (1956), at p. 13. The U.S. Dept. of Commerce reports that 783 drainage districts existed in Illinois in 1957 (Local Government Structure, 1957, U.S. Census of Government, Vol. 1, No. 3).

[95] See Comm'rs of Sangamon and Drummer Drainage Dist. v. Houston, 284 Ill. 406 (1918); People v. Allen, 330 Ill. 433 (1928).

[96] See later discussion of such powers.

[97] Turley v. Arnold, 384 Ill. 158, 51 N.E. 2d. 176, 182 (1943). See Drainage, p. 139, regarding common-law drainage rules.

[98] Union Drainage Dist. No. 5 v. Hamilton, 390 Ill. 487, 61 N.E. 2d. 343, 346 (1945). The court pointed out, but did not expressly rely on it in their decision, that the landowner and his predecessors in title had, for over 30 years, been taking advantage of the drainage afforded by the district, before the present controversy arose. See also Union Drainage Dist. No. 6 v. Manteno Limestone Co., 341 Ill. App. 353, 93 N.E. 2d. 500, 503 (1950).

in the drainage system. (Various relationships between water-use rights and the operation of drainage districts are discussed earlier.)[99]

Under the new drainage code adopted in 1955, the primary method for organizing a drainage district is upon petition "signed by a majority of the adult owners owning more than one-third of the land in the proposed district; or by more than one-third of the adult landowners owning a major portion of the land."[100] The petition is filed in the circuit court of the county in which most of the proposed district lies.[101]

Any petition must include: a) the name of the proposed district; b) a statement showing the necessity of the district; c) a description of the proposed work; d) a general description of the lands that will be affected and the names of the owners; e) a description of the boundaries and approximate number of acres; and f) a request for the organization of the district and appointment of commissioners.[102]

Provision is made for notice and hearing on the petition.[103] The circuit court hears the petition. Any party affected may appear and contest the necessity or utility of all or any part of the proposed work.[104] After the hearing, the court determines whether the petition has been signed by the required number of persons owning the required amount of land and whether the petition meets other legal requirements.[105]

If the determination is affirmative, the court appoints three temporary commissioners (competent residents of Illinois who own land in the proposed district). These commissioners are officers of the court and give an oath as such.[106]

Six steps are provided by the statute, from the appointment of temporary commissioners to the court's order confirming organization.[107] They are:

1. Appointment of commissioners.

2. The commissioners must organize for the conduct of business. One must be elected chairman and one may be elected secretary. A majority of the commissioners constitutes a quorum. When actually engaged in district business, commissioners are entitled to eight dollars a day and necessary travel expenses.

3. The commissioners must examine the land and determine the following things: a) whether the proposed project is feasible, and if not, what would be feasible; b) the probable cost; c) the probable annual cost of upkeep;

[99] See the section on artificial watercourses, p. 56. Note particularly the discussion of a landowner's rights to use water in drainage ditches operated by a drainage district.

[100] Or, if there are only two landowners, only one needs to sign if he owns at least one-fifth of the land.

[101] Ill. Rev. Stat., c. 42, § 3-3.

[102] *Ibid.*

[103] *Id.* c. 42, §§ 3-4 to 3-6.

[104] *Id.* § 3-7.

[105] *Id.* § 3-8.

[106] *Id.* §§ 3-9 to 3-10.

[107] Hannah, *op. cit. supra* note 94, at 15 and 16. These provisions are found in §§ 3-12 to 3-15 of the drainage code.

d) what lands will be injured and the probable aggregate amount of damage; e) what lands will be benefited and whether the aggregate amount of benefits will equal or exceed the cost of construction; and f) whether the proposed district embraces all lands that will be damaged or benefited; if it does not, they must report additional lands that will be affected. The commissioners, unless excused by the court, must employ an engineer to go upon lands in the proposed district and make examinations, plans, plats, and surveys.

4. The commissioners must prepare a report for the court on the things listed in Step 3. They must make this report on a date the court set at the time it appointed them. Their report must show: a) whether the proposed levees or ditches will be sufficient to protect the land permanently from overflow or to drain it; b) the probable annual expense; c) what lands will be benefited and the aggregate amount of such benefits; d) whether aggregate benefits will equal or exceed annual costs; e) whether the proposed district embraces all the lands benefited, and if not, what additional lands will be benefited. The commissioners are not confined to the plan in the petition but may alter it to secure maximum benefits and minimum damages. And they may extend or contract the proposed boundaries, so long as the petition still fulfills the original requirements as to number of signers and acreage. The court may continue hearings for the period permitted by law.

5. The court sets and publishes a date for a hearing after the commissioners' report is filed. At the hearing all persons may appear and contest the confirmation of the report, show that it should be modified, or that additional work should be undertaken. Any competent evidence may be introduced to support the contentions that are made.

6. The court may do one of five things after the hearing: a) confirm the report and enter the prescribed order declaring the district organized; b) modify the report and confirm it; c) order the commissioners to review and correct the report before it is confirmed; d) refer the report for amendment and adjourn the hearing; or e) find that the district should not be organized.

Provision is made for an alternate method of organization. Proceedings are instituted upon a petition signed by at least one-tenth of the adults who own at least one-fifth of the land in the proposed district. After notice and hearing on the petition, a referendum is held. A majority vote of the adult owners of land in the proposed district authorizes the court to proceed with organization of the district.[108]

There is also provision for the organization of drainage districts by users. This method is utilized where a group of landowners have previously constructed a combined system of drains or levees by mutual consent or agreement for their mutual benefit. The system must connect all lands proposed to be included, and all of the ditches must drain into a common outlet. There must be an existing failure to repair and improve the ditches by voluntary agreement, and there must be a showing of damage to the lands of the petitioners because of this failure to repair and improve.[109]

The procedure for organization of a drainage district by user is ini-

[108] ILL. REV. STAT., c. 42, § 3-26.
[109] *Id.* § 3-27.

tiated by petition signed by at least one interested landowner. The procedure is otherwise similar to the organization of a regular district.[110]

If there is a need for deepening and widening the natural outlets for collected waters from areas that have already organized into at least two drainage districts, an outlet drainage district may be formed.[111] The organization of such a district follows the procedure for organizing a regular drainage district.[112]

Another type of drainage district authorized by the drainage code is called a mutual drainage district.[113] When all the landowners in an area sign an agreement that is subsequently notarized and filed in the drainage record, a mutual district is formed. The agreement may cover such points as the location and type of work to be done, adjustment of damage, amount of assessment to be levied, assessment against each tract, and how the work is to be done. The district is operated under the provisions for regular drainage-district operation.

Upon the organization of any of these districts, the temporary commissioners become permanent commissioners until the first Tuesday in September following its organization. Then three commissioners are appointed by the circuit judge to handle the affairs of the drainage district,[114] who serve three-year staggered terms. Provision is made allowing a majority of the adult landowners owning a majority of the land area to designate by petition who shall be appointed. A procedure is included for dispensing with two of the commissioners after the initial work is completed.[115]

The powers and duties of the commissioners have been summarized as follows:[116]

> Generally speaking, commissioners have the power and authority to do and the duty of doing all things necessary for the accomplishment of the purposes of the law. Their powers and duties, however, are specifically prescribed by law and are strictly construed. These powers and duties are: a) to go upon the land, employ necessary assistance, and adopt a plan or system of drainage; b) to obtain the necessary lands and rights of way by agreement or, if necessary, by eminent domain proceedings; c) in the corporate name of the district, to enter into contracts, sue and be sued, plead and be impleaded, and do all such acts and things as may be necessary for the accomplishment of the purposes of this act; d) to compromise suits and controversies and employ necessary agents and attorneys; e) to carry out specific provisions of the law

[110] *Ibid.*

[111] *Id.* c. 42, §§ 3-28 to 3-30.

[112] *Id.* § 3-28.

[113] *Id.* § 3-31.

[114] *Id.* § 4-1. The act includes provisions for the election of commissioners of certain preexisting drainage districts (§ 4-5); for the appointment of others (§ 4-7); for changing from election to appointment (§ 4-6) or from appointment to election of the commissioners of any district (§ 4-8).

[115] *Id.* §§ 4-2, 4-9. This also is instituted by petition. If more work is to be done later, two additional commissioners may be appointed, again by petition.

[116] HANNAH, *op. cit. supra* note 94, at pp. 8, 9.

relative to making various types of assessments, employing a treasurer, employing other assistance, annexing lands, borrowing funds, enforcing payment of assessments, and consolidating and dissolving districts; f) to let contracts for the surveying, laying, constructing, repairing, altering, enlarging, cleaning, protecting, and maintaining of any drain, ditch, levee, or other work; to let contracts by bid if the work to be done is the construction of the principal work and the cost is more than $1,000; g) to borrow money, without court authority, up to 90 percent of assessments unpaid at the time for the payment of any authorized debts or construction; h) to widen, straighten, deepen, or enlarge any ditch or watercourse, and to remove driftwood and rubbish whether the ditch is in, outside of, or below the district; i) to cause railroad companies to construct, rebuild, or enlarge bridges or culverts when necessary; j) to make annual or more frequent reports as required by the circuit court, including an annual financial report; k) to conduct meetings in the county or counties in which the district is located; l) to use public highways for the purposes of work to be done; m) to keep the works of the district in operation and repair; n) to sell or lease any land owned by the district; o) to own and operate necessary machinery and equipment; p) to construct access roads and level spoil banks; q) to abandon works no longer useful to the district; and r) to contract with other public agencies, including the federal government.

The court may, for good cause, remove any commissioner appointed by it and may fill all vacancies. Also, the law provides for a penalty and removal from office of a commissioner who refuses or neglects to discharge the duties imposed on him by law.

Also, upon petition to the court, either by the commissioner or a landowner, the court may determine the duty of the commissioners toward such landowner.[117]

The drainage code also includes provisions for abandoning work and dissolving districts,[118] consolidating districts,[119] annexing and detaching lands,[120] and organizing subdistricts.[121]

A large body of case law interpreting the various provisions of the different acts exists. It is much too voluminous to allow coverage in this publication. The foregoing discussion is a brief attempt to point out pertinent aspects of the statutory law of Illinois drainage districts. The reader is cautioned that this treatment is based on an incomplete examination of the vast number of cases.[122]

[117] The statutory provisions are found in ILL. REV. STAT., c. 42, § 4-14 *et seq.* A 1959 amendment of § 4-14 authorizes drainage districts to make agreements with state departments or agencies to facilitate the use and control of their ditches, drains, levees, and drainage structures in the operation and management of fish preserves and game refuges. See State Departments, Boards, and Commissions (Department of Conservation), p. 149, regarding fish preserves. These provisions also were amended in 1957 and 1959 in certain other particulars, but not so as to require alteration of the general statement quoted above.

[118] *Id.* §§ 10-1 to 10-11.

[119] *Id.* §§ 9-1 to 9-9.

[120] *Id.* §§ 8-1 to 8-22.

[121] *Id.* §§ 7-1 to 7-12.

[122] A collection of articles dealing with Illinois drainage districts and laws appears in 1960 U. ILL. L. FORUM, pp. 189-300.

Surface-water protection districts. The introductory section of the act authorizing the creation of surface-water protection districts states that the legislature has determined the necessity of providing for such districts and of giving them the necessary power to provide adequate protection from property loss and damage to lives as far as possible. It further states that the powers conferred in the act are public objects and governmental functions in the public interest.[123]

The area that may be incorporated into such a district must be contiguous, not in more than two counties, not in another such district, and so situated that it can be benefited by the establishment of the district.[124] The district is organized and governed in a manner similar to that of the water authority, except that only 50 legal voters (a majority, if less than 100 legal voters reside in the area to be organized) are required to sign the petition for organization,[125] and there are five members on the board of trustees instead of three.[126]

The board of trustees has the power to make ordinances for necessary protection from surface-water damage, to acquire property rights necessary for this purpose (through the use of eminent domain if necessary), and to erect any structures necessary for carrying out its purposes.[127] The district has a legal duty to protect against surface-water damage and, if a proposed project will increase the flow of water in any stream, must first submit plans of the proposed project to the Department of Public Works and Buildings for approval.[128]

A district may borrow money and issue bonds therefor up to 5 percent of the valuation of taxable property, if so authorized by a majority vote in an election on the question.[129] The district is authorized to levy a tax for the repayment of bonds of up to .125 percent of the full, fair, equalized cash value without an election, or up to .25 percent if approved by an election on the question.[130]

At least four surface-water protection districts have been organized under the act,[131] apparently primarily for purposes of drainage and flood protection.

Soil and water conservation districts. Such districts may conduct a variety of functions relating to soil and water conservation and the control

[123] ILL. REV. STAT., c. 42, § 448.
[124] *Id.* § 449.
[125] *Id.* §§ 450, 451, 453 to 455.
[126] *Id.* §§ 456 to 459.
[127] *Id.* § 463.
[128] *Id.* § 464.
[129] *Id.* § 466.
[130] *Id.* §§ 467, 468.
[131] Westmont and Westmont Acres Surface Water Protection Districts, Du Page County; Mascoutah Surface Water Protection District, St. Clair County; and Robein Surface Water Protection District, Tazewell County. (Based on 1960 abstract of valuations of the Property Tax Division, State Department of Revenue.)

and prevention of soil erosion or floodwater and sediment damages.[132] Related functions of the state Department of Agriculture, state Soil and Water Conservation Districts Advisory Board, and the Soil Conservation Service of the U. S. Department of Agriculture, and the role of such districts in small watershed projects are discussed elsewhere.[133]

Such districts may carry out their purposes by securing the voluntary cooperation of landowners and others, and may lend equipment to landowners or occupiers for accomplishing the district's purposes. The district also may acquire necessary property or rights or interests therein through voluntary means or through condemnation. Subdistricts of such districts may be formed in watershed areas and are empowered to develop and execute plans and programs relating to any phase of flood prevention or control of erosion, floodwaters, or sediment damage and to levy and collect a tax not in excess of .125 percent of the full, fair cash value of the taxable property therein.

Soil and water conservation districts also may adopt land-use regulations or ordinances to govern the use of lands within their boundaries "in the interest of conserving soil, soil resources, water, and water resources and preventing and controlling soil erosion and erosion, floodwater and sediment damages;"[1] however, such an ordinance must be approved by at least three-fourths of the landowners eligible to vote in a referendum on the question.[134] Such regulations may include:

1. Provisions requiring the carrying out of necessary engineering operations, including the construction of terraces, terrace outlets, check dams, dikes, ponds, ditches, and other necessary structures.

2. Provisions requiring observation of particular methods of cultivation including contour cultivating, contour furrowing, strip cropping, seeding and planting of lands to water-conserving and erosion-preventing plants, trees, grasses, forestation, and reforestation.

3. Provisions requiring the permanent retirement from cultivation of highly erosive areas or of areas on which erosion cannot be adequately controlled if cultivation is carried on.

4. Provisions for such other means, measures, operations, and programs as may assist conservation of soil and water resources and prevent or control soil erosion in the district.

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[132] ILL. REV. STAT., c. 5, § 106 *et seq.* The declaration of policy in the applicable act is as follows:

"It is hereby declared to be the policy of the legislature to provide for the conservation of the soil, soil resources, water and water resources of this State, and for the control and prevention of soil erosion, and for the prevention of erosion, floodwater and sediment damages, and thereby to preserve natural resources, control floods, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wild life and forests, protect the tax base, protect public lands, and protect and promote the health, safety and general welfare of the people of this State."

[133] See State Departments, Boards, and Commissions, p. 143, and Federal Matters, p. 230.

[134] The state Department of Agriculture's opinion regarding such ordinance shall be obtained and made known to the landowners prior to the referendum.

The regulations shall be uniform throughout the district except that the directors may classify the lands within the district with reference to such factors as soil type, degree of slope, degree of erosion threatened or existing, cropping and tillage practices in use, and other relevant factors, and may provide regulations varying with the type or class of land affected, but uniform as to all lands within each class or type.

The directors of such a district may go upon any lands therein to determine whether such regulations are being observed, and they may provide by ordinance that any landowner sustaining damage from any violation of such regulations by another landowner may recover damages at law from him for such violation.[135]

Sanitary districts. There are two general acts under which sanitary districts may be organized in Illinois. The first was enacted in 1917[136] and the second in 1936.[137]

Under these acts, as amended, 93 districts had been organized by July, 1963. Of these, 63 had been organized under the 1917 act and 30 under the 1936 act. Since 1958, 31 districts had been created.[138]

The salient features of the two acts will be discussed separately.

The 1917 act. The purpose of the 1917 act is declared to be as follows:

> The construction and maintenance of a plant or plants for the purification and treatment of sewage and the maintenance of one or more outlets for the drainage thereof, after having been so treated and purified by and through such plant or plants, as will conduce to the preservation of the public health, comfort and convenience . . . and to prevent contamination of water supplies.[139]

The territory to be organized may include any contiguous area that includes at least one incorporated municipality, but must include a municipality and territory not more than 6 miles from a municipality. No area can be in more than one sanitary district.[140]

Formation of the sanitary district is initiated by petition, signed by at least 100 legal voters resident in the area to be organized, and filed with the circuit judge in the county where the greater portion of the proposed district will lie. The county judge must then call to his assistance two judges of the circuit embracing the proposed district or major portion thereof. These judges constitute a board of commissioners who consider the proposed boundaries and hold public hearings. On the basis of the hearings, they determine the boundaries of the proposed district and order that the proposal for organization be submitted to referendum

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[135] Ill. Rev. Stat., c. 5, §§ 128, 129.

[136] *Id.* c. 42, § 299 *et seq.*

[137] *Id.* § 412 *et seq.*

See The Sanitary District Laws of Illinois, Ill. Dept. Pub. Health, Div. Sanitary Engineering Tech. Rel. No. 20-3, p. 4 (Nov., 1951, rev. Feb., 1958).

[138] See Appendix G.

[139] Ill. Rev. Stat., c. 42, § 299.

[140] *Ibid.*

to be held within 60 days after the order is entered. A majority vote is necessary for approval.[141]

The corporate authority for a district is a board of trustees consisting of three members serving staggered terms, not more than two such members being from one incorporated municipality in districts that contain two or more (or parts of two or more) incorporated municipalities.[142]

No trustee can have any interest in any enterprise doing business with the district.[143] The board manages district affairs, and may elect an engineer and an attorney, and may form a board of local improvements.[144]

The board has the power to:

1. Pass ordinances, rules, and regulations necessary to do business and carry out objectives.[145]

2. Maintain a police force having jurisdiction to prevent pollution of waters within 15 miles of a water supply intake, after first eliminating pollution from refuse or sewage originating from their own sanitary district.[146]

3. Acquire or sell, for corporate purposes, real and personal property, drains, sewers, outlets, rights of way, and privileges, inside and outside of the district, by purchase, condemnation, or otherwise,[147] and acquire by purchase or contract the sanitary facilities of any municipality within the district.[148]

4. Construct, improve, operate, and maintain:
   a. Conduits, ditches, outlets, pumping stations, sewage treatment facilities, and water supplies for flushing and diluting purposes, inside and outside the district.[149]
   b. Ditches, within three miles of the district.[150]
   c. Dams, within three miles of the district, to control stream flow.[151]

5. Enter into contracts with federal or state agencies or areas outside the district[152] for use of the district facilities, to obtain easements through public properties, and to lease (for not exceeding 50 years) or sell property to the federal government or others.[153]

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[141] *Id.* c. 42, § 299.
[142] *Id.* § 301.
[143] *Ibid.*
[144] *Id.* c. 42, § 303. A majority of the board constitutes a quorum, but a smaller number may adjourn from day to day. *Id.* § 301.
[145] *Id.* § 303.
[146] *Id.* § 317.
[147] *Id.* § 307. Section 307.1 authorizes the district 1) to lease to others (for up to 10 years) such of its facilities as may no longer be needed or are not immediately needed, and 2) to grant easements and permits for the use of such facilities, rights of way, or privileges in such way as not to interfere with the district's purposes.
[148] *Id.* § 306.1.
[149] *Id.* § 317a.
[150] *Id.* § 317.
[151] *Ibid.*
[152] *Id.* § 316.
[153] *Id.* § 308½. Lease payments must be made from current funds and cannot constitute indebtedness.

6. Apportion and collect additional charges from the producer for district treatment of industrial wastes.[154]

7. Conduct financial affairs as follows:

a. Borrow money and issue bonds, not in excess of 5 percent of the assessed valuation of taxable property. A bond issue requires a referendum on the question and an approval by majority vote unless the indebtedness is incurred in compliance with a valid order to abate a source of pollution.[155]

b. Levy and collect other direct taxes, for corporate purposes, not in excess of .083 percent of the assessed valuation of taxable property.[156]

c. Levy and collect an additional .083 percent in direct tax, upon approval of the voters.[157]

d. Issue special assessment bonds, general obligation bonds, or both, for construction of sewers and adjuncts.[158]

e. Levy and collect a public benefit tax of .05 percent of assessed valuation of taxable property, such tax being a special fund in addition to the statutory limit.[159]

f. Borrow money from the Reconstruction Finance Corporation or from any other source to finance acquisition, construction, or improvement of sewage works.[160]

g. Issue by ordinance, 40-year sewage revenue bonds to finance sewage works. The ordinance becomes effective within 10 days after it is adopted pursuant to an order of the Sanitary Water Board to the district to abate a source of pollution. In other cases, if the Board had not ordered an abatement, a referendum may be requested by petition signed by at least 300 legal voters or by one-fifth of all the legal voters residing within a district, whichever is less. In such case, a referendum must be held on the issue. A majority vote is necessary to make the ordinance effective.[161] These revenue bonds are not an indebtedness of the district within any constitutional or statutory limitation.[162]

h. Establish rates and charges for sewerage services, and sue users of the system for delinquent sewerage service charges.[163]

The district must provide adequate and suitable sewage facilities as soon as possible or be subject to a misdemeanor charge by the Sanitary

[154] *Id.* § 306.
[155] *Id.* § 308.
[156] *Id.* §§ 311, 309.
[157] *Id.* § 311.
[158] *Id.* §§ 317a, 317c.
[159] *Id.* § 317 d.1.
[160] *Id.* § 319.2.
[161] *Id.* §§ 319.2, 319.3, 319.4, 319.12, 319.13.
[162] *Id.* § 319.5.
[163] *Id.* § 319.7.

Water Board, which misdemeanor carries a fine and possible ouster of the trustees from office.[164] The board may adopt any feasible method of accomplishing the objectives for which the district was organized,[165] but it may not 1) permit the flow of sewage into Lake Michigan,[166] 2) take or damage private property without making just compensation under eminent domain,[167] 3) operate a water supply system for inhabitants of the district,[168] 4) use sewer revenue depreciation funds for sewer extensions,[169] or 5) let contracts exceeding $1,000 without advertising for bids and letting to the lowest responsible bidder.[170]

The 1936 act.[171] This act supplements the 1917 act,[172] in that it authorizes the formation of a sanitary district *outside* the corporate limits of a municipality, thus allowing the organization of areas that could not be organized under the 1917 act. It allows unincorporated areas to obtain taxation powers necessary for acquisition of sewage works as well as for a public water supply.[173] The construction or acquisition of waterworks shall be approved by referendum and may be financed only by bonds payable from the revenue derived from their operation.[174]

Any area of contiguous territory in a single county, outside the corporate limits of a municipality, may be organized as a sanitary district under this act. Formation is initiated by petition in a manner similar to that authorized under the 1917 act, except that 20 percent of the resident legal voters are required to sign the initiating petition.[175]

The corporate authority is a board of trustees, consisting of three members. Their appointment, tenure of office, powers, and duties are similar to those of the board of trustees of districts organized under the 1917 act.[176] The board of trustees has the following financial powers:

1. To borrow money and issue bonds for corporate purposes, not to exceed .05 percent of the assessed valuation of taxable property, if so authorized by majority referendum.[177]

2. To levy and collect a direct annual tax for corporate purposes not to exceed .25 percent of the assessed valuation of taxable property, and, upon approval by majority referendum, an additional .25 percent, which may also be terminated by referendum.[178]

[164] *Id.* § 306.
[165] *Id.* § 319.7.
[166] *Id.* § 306.
[167] *Id.* § 307.
[168] *Id.* § 306.
[169] *Id.* § 319.7.
[170] *Id.* § 310.
[171] *Id.* §§ 412 to 443n.
[172] *Id.* § 299 *et seq.*
[173] *Id.* §§ 418, 443 b, 443 c.
[174] *Id.* § 443 b.
[175] *Id.* § 412. A district can be formed within an existing sanitary district under this act. See THE SANITARY DISTRICT LAWS OF ILLINOIS, note 137 *supra*, at p. 11.
[176] ILL. REV. STAT., c. 42, §§ 414, 415, 418, 419, 420, 421, 423, 425, 434-438.
[177] *Id.* § 422.
[178] *Id.* § 427.

3. To issue special assessment bonds, general obligation bonds, or both, for construction of sewers and adjuncts.[179]

4. After a majority referendum, to issue 30-year revenue bonds for costs of acquiring, constructing, or improving waterworks.[180]

5. To issue revenue bonds for sewers and carry out financing of sewerage service as provided in the sections discussed under the 1917 act.[181]

Other significant limitations and requirements in the 1936 act are similar to those listed under the earlier discussion of the 1917 act.[182]

Park districts. In 1947 a new park district code was enacted[183] in an attempt to codify the law relating to existing parks and to all parks to be created in the future.[184] This permits the creation and operation of parks generally throughout the state by following prescribed procedures, and also relates to "submerged land park districts."[185]

Most park districts are not allowed to obtain property outside the district, including riparian rights, by condemnation, but must rely on other methods of acquisition.[186] They are authorized to establish and maintain recreational programs including those involving the use of bodies of water within their boundaries.[187] Districts bordering on public waters[188] have the power to acquire and operate harbors for recreational use and for the benefit of the public.[189] Districts abutting navigable waters are given special powers to reclaim bordering submerged land the title to which is in the state;[190] they may make extension over such waters, and they may use condemnation if necessary to acquire riparian rights necessary for such extensions.[191] But this expressly does not give them rights to interfere with navigation or shut off public access thereto.[192] Nearly 100 parks, memorials, and conservation areas are mentioned in current legislation, and many other parks have the powers mentioned above.[193]

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[179] *Id.* § 439.

[180] *Id.* §§ 443b-443j.

[181] *Id.* §§ 319.1 to 319.22.

[182] Significant sections of the act are §§ 418, 419, 423, 425. Under § 425, contracts exceeding $500 (instead of $1,000 as under the 1917 act) must be let by advertising and accepting the lowest responsible bid.

[183] *Id.* c. 105, §§ 1-1 to 12.1-1.

[184] *Id.* § 1-2.

[185] This code has been amended a number of times.

See *Id.* § 325 regarding transfer of shore lands and riparian rights to park districts by municipalities. See §§ 1-2 and 1-3(c) for submerged-land park districts.

[186] *Id.* § 8-1. See Bowes v. City of Chicago, *supra,* concerning conveyance of submerged lands and securing of riparian rights by Lincoln Park.

[187] Meaning the same as that term used in *Id.* c. 19, § 65 [*Id.* c. 105, § 11.1-1].

[188] *Id.* § 11.1-2.

[189] *Id.* § 8-10.

[190] *Id.* §§ 11-2 to 11-5.

[191] See *Id.* §§ 11-1, 92 to 98, 114, 125 to 129, 325.

[192] *Id.* § 11-5; c. 24, § 11-117-11 regarding acquisition of submerged lands by municipalities, discussed under Local Governmental Units, p. 153, has no such disclaimer.

[193] See *Id.* c. 105, §§ 468g to 489, 333.1.

Special District Organizations Created by Statute

Under this heading are found port districts and certain sanitary districts and park districts. They are distinguished from other organizations concerned with water use in that they are not uniform throughout the state but instead are unique and usually limited to a particular area, generally because of some unusual feature involving the water resources of that area. Some special districts have been created directly by state legislation, without any need for referendum or court approval.[1]

It may be noted that the Illinois constitution provides that the General Assembly shall not pass local or special laws in regard to certain matters including the protection of game or fish and the chartering or licensing of ferries or toll bridges.[2] "In all other cases where a general law can be made applicable, no special law shall be enacted."[3]

Special sanitary districts. There are three acts under which special sanitary districts have been created.[4] Although some of the acts are couched in rather general terms, they obviously were enacted for the purpose of authorizing the organization of the specific districts that have been formed under them.

The first act was passed in 1889 and authorized the formation of the Sanitary District of Chicago.[5] It was organized primarily to protect the water supply of Chicago from contamination by preventing discharge of sewage into Lake Michigan, and by providing for sewage disposal. To divert sewage from the Lake and promote navigation, the Chicago Sanitary and Ship Canal was constructed. It required excavation through the low continental divide, thereby reversing the natural flow of the Chicago River and the South Branch to discharge into the Des Plaines River, which joins the Kankakee downstream to form the Illinois River.

Water from Lake Michigan was diverted to afford dilution of sewage, the method of sewage disposal used up to 1922. This method proved inadequate to keep pace with the rapid population increase and was gradually replaced by construction of sewage-treatment works.

Because of its enormous size and population, the District has faced many problems. Among these, financial aid played an important role, but

[1] See, *e.g.*, the statute creating the Chicago Regional Port District (ILL. REV. STAT., c. 19, § 152 *et seq.*) *But see, e.g.*, the statute enabling the creation of the Chicago Park District by referendum. *Id.* c. 105, § 333.1 *et seq.*

[2] See People v. Wilcox, 237 Ill. 421 (1908), holding an early statute invalid on this ground.

[3] ILL. CONST., art. IV, § 22. The courts have indicated that a law is "general" if it is general and uniform in operation on all persons *in like circumstances.* Lasdon v. Hallihan, 377 Ill. 187 (1941). But a law may be "general" even though it operates in only a single place, where conditions necessary to its operation exist. Littell v. Peoria, 374 Ill. 344 (1940). See People v. Bowman, 247 Ill. 276 (1910) regarding a 1907 sanitary district law discussed later, under Special Sanitary Districts.

[4] These are found in ILL. REV. STAT., c. 42, §§ 320 to 381, 247 to 274, 277 to 298a. See also Ill. Dept. Pub. Health, *op. cit. supra,* note 137, p. 181, at p. 4 *et seq.* The following material discussing these three special acts is taken largely from the technical release just cited.

[5] *Id.* § 320 *et seq.*

location, construction, and improvement of facilities were major engineering projects, and costly litigation resulted from the use of the activated-sludge process and the employment of water from Lake Michigan.[6]

The District comprises about 858 square miles, and includes the City of Chicago, 113 other municipalities, and 20 other sanitary districts. (See Appendix H.) This area produces more than 1 billion gallons of sewage a day. To treat it, four treatment plants were constructed. They serve a population of more than 5 million. In 1955 the District was renamed "The Metropolitan Sanitary District of Greater Chicago."

The second act, passed in 1907,[7] authorized formation of the East Side Levee and Sanitary District, empowered to construct, operate, and maintain treatment works. The District embraces parts of both Madison and St. Clair Counties bordering on the Mississippi River.[8] It included in 1958 the following 13 incorporated municipalities: Alorton, Brooklyn, Cahokia, East St. Louis, Fairmount City, Granite City, Madison, Monsanto, Nameoki, National City, Pearl Harbor, Venice, and Washington Park. Several unincorporated communities near East St. Louis, and those of Centerville, Fireworks Station, Maplewood, Midway, and Mitchell were a part of the district. There were about 140,000 inhabitants in the district. The municipalities that had sewers were: East St. Louis, Fairmount City, Granite City, Madison, Monsanto, Venice, and Washington Park. None of these had a sewage-treatment works in February, 1958.

Because this district is situated primarily in river bottomland, drainage is a major concern of the residents. Extensive projects have been necessary to provide drainage and to minimize flooding of property, and as these activities have had precedence, no serious attempts had been made to provide sewage treatment. Levees, diversion channels, drainage ditches, conduits, and pumping stations comprise the works of the district.

The area of the district is highly industrialized and is increasing rapidly in population. Together with St. Louis, also high in industry, it comprises a metropolitan area that discharges enormous volumes of sewage into the Mississippi River, which even with great dilution, shows some undesirable pollution. A Bi-State Development Agency was to consider the problems of the St. Louis metropolitan area, including the best approaches to providing sewage treatment.

The third act creating a special sanitary district was passed in 1911[9] and authorized the formation of the North Shore Sanitary District located entirely in Lake County with Lake Michigan as its eastern boundary.[10]

[6] See Interstate and International Matters, p. 257, on the Chicago diversion.

[7] ILL. REV. STAT., c. 42, § 247 *et seq.*

[8] The act authorizes the formation of a sanitary district in any contiguous area within two counties, having two or more municipalities and an aggregate population of 3,500 or more, and which is subject to overflow from any river or tributary.

[9] ILL. REV. STAT., c. 42, § 277 *et seq.*

[10] The act authorizes two or more municipalities in a contiguous area of a single county, any one of which procures its water from Lake Michigan, to form a sanitary district if a common sewage treatment plant would be conducive to public health.

Created to protect the waters of Lake Michigan from pollution, the District extends from the Wisconsin state line to Cook County, adjoining the northern boundary of the Sanitary District of Chicago. It comprises an area most of which is in the natural drainage of Lake Michigan, and includes the following municipalities: Winthrop Harbor, Zion, Waukegan, North Chicago, Lake Bluff, Lake Forest, Gurnee, Park City, and Highland Park. Because the boundaries of these municipalities are extensive, they include nearly all of the persons in the District.

Industry is concentrated principally in the Waukegan-North Chicago area. Defense and government installations located at Great Lakes and Fort Sheridan were not an integral part of the District in 1958.

The prosperity of the region is based on the proximity of Lake Michigan, which provides great quantities of fresh water, an avenue for navigation, an excellent source of fish, and many recreational activities. It is important, therefore, that the lake's waters be protected from pollution. Before formation of the District, the serious extent of pollution was reflected in the high incidence of water-borne diseases in the North Shore municipalities.

Eleven sewage-treatment plants were constructed by 1958, two having complete treatment, one having chemical treatment, and the others employing sedimentation. The sedimentation plants that discharge effluents into Lake Michigan have chlorination facilities for disinfection.

The District's policy was to provide large intercepting sewers where necessary, and to provide necessary sewage-treatment works. Industrial-waste problems and the quality of the lake waters have been a deep concern of officials in recent years. Plans for the future included abandonment of certain treatment plants on the lake and provisions for treatment in the Skokie River region. To accomplish this, pumping stations and long intercepting sewers would be required.

Port districts. There are seven port districts in Illinois: the Chicago,[11] the Waukegan,[12] the Joliet,[13] the Tri-City,[14] the Seneca,[15] the Shawneetown,[16] and the Southwest[17] Regional Port Districts. The last three districts were created in 1961 and the others previously.

The Chicago Regional Port District, created in 1951, is a political subdivision and municipal corporation which can sue and be sued in its corporate name but whose property cannot be levied against.[18] It embraces all of Townships 36 and 37 situated in Cook County, and Section 14 of Township 37, Range 11 situated in Du Page County.[19]

The governing and administrative body of the District is a board of

[11] ILL. REV. STAT., c. 19, §§ 152 to 178.
[12] *Id.* §§ 179 to 212.
[13] *Id.* §§ 251 to 283.
[14] *Id.* §§ 284 to 317.
[15] *Id.* § 352 *et seq.*
[16] *Id.* § 401 *et seq.*
[17] *Id.* § 451 *et seq.*
[18] But leasehold estates held by lessees of the district may be taxed.
[19] ILL. REV. STAT., c. 19, §§ 154, 154.1.

nine members known as the Chicago Regional Port District Board.[20] It has the power to locate and establish dock lines and shore or harbor lines, to prevent or remove obstructions, and to issue permits for the construction or deposit of any structure or material in, or within 40 feet of, any navigable waters[21] within the Port District. It may acquire and operate port and water terminal facilities[22] and enter into contracts dealing in any manner with the objects and purposes of the statute.[23]

The statute declares that it is unlawful to make any fill or deposit, or to build any structure in or within 40 feet of any navigable waters within the Port District without first obtaining a permit to do so from the Port District Board.[24] A violator is subject to a fine of up to $5,000 and imprisonment not exceeding one year. The unlawful fill, deposit, or structure may be abated at the violator's expense or it may be allowed to remain, subject to such regulations, restrictions, changes, repairs, etc., as the District may require.

The District may regulate the anchorage, moorage, and speed of vessels outside municipal boundaries.[25]

The Port District Board has the power to pass all ordinances and make all rules and regulations proper or necessary to carry into effect the powers granted to the District. It may also impose such fines and penalties as it deems proper.[26] All final administrative decisions of the Board are subject to judicial review under the provisions of the Administrative Review Act.[27]

This act supersedes any conflicting powers which may be given to municipalities under the Illinois Municipal Code.[28]

There is no provision in the act creating the Chicago Port District which specifically defines or changes the rights of riparian owners in the District. Therefore, it seems that any encroachment on such rights by the Port District in the exercise of its statutory powers must first be made lawful. This may be done, for example, by obtaining the consent of the riparian owners whose rights are invaded or by using the power of eminent domain.

The organization and powers of the other port districts are more or less similar to the Chicago district except for the territory which they

[20] *Id.* § 163.

[21] This means "any public waters which are or can be made usable for water commerce." (ILL. REV. STAT., c. 19, § 153.)

[22] This means all public structures that are in, over, under, or adjacent to navigable waters and are necessary for or incident to the furtherance of water commerce, and includes the widening and deepening of slips, harbors, and navigable waters. (ILL. REV. STAT., c. 19, § 153).

[23] *Id.* § 156.

[24] *Id.* § 162. Held constitutional in People *ex rel.* Gutknecht v. Chicago Regional Port Dist., 4 Ill. 2d. 363 (1955). This decision also held that a permit must be obtained from the port district in addition to other permits previously required by law. Therefore, a permit must also be obtained from the Department of Public Works and Buildings. See ILL. REV. STAT., c. 19, §§ 52 to 78.

[25] *Id.* § 156.

[26] *Id.* § 172.

[27] *Id.* § 176.

[28] *Id.* § 178. See also c. 24.

embody.[29] Several are authorized to establish and maintain public airports. The Waukegan Port District embraces all of the City of Waukegan, including the area in Lake Michigan which lies within a projection of the eastern boundary of Waukegan for a distance of 2 miles into the lake.[30] The Joliet Regional Port District embraces all the territory included within Du Page, Lockport, Joliet, Troy, and Channahon Townships in Will County.[31] The Tri-City Regional Port District includes Granite City, Venice, and Nameoki Townships and the part of Chouteau Township lying south of the Cahokia diversion canal, all in Madison County, plus the Chouteau and Gaboret Islands.[32] The Seneca Regional Port District embraces the Village of Seneca and portions of La Salle and Grundy Counties. The Shawneetown Regional Port District includes portions of Gallatin and Hardin Counties and the Southwest Regional Port District includes portions of St. Clair County. A procedure is included in the acts for the annexation of additional territory.[33]

Park districts. There are a number of parks in Illinois, some created directly by state legislation in particular areas.[34] and others under permissive legislation discussed earlier.

Regional Planning Commissions

Earlier reference was made to statutes under which municipal and regional planning commissions may be created to make studies and devise plans to guide both land and water use.[35] Regional planning commissions may be created by one or more county boards to serve areas of any size, from a portion of a county to several counties.[36] They have no enforcement powers but have the power to develop comprehensive resource-use or other plans and to encourage cooperation among the political subdivisions relative to such plans.

Specific legislation has directly created the Northeast Illinois Metropolitan Area Planning Commission, which serves an area encompassing all or parts of six counties — Cook, Du Page, Kane, Lake, McHenry, and

[29] In the more recently created districts, municipalities need not get a permit from the district to erect structures, etc. in navigable waters within their limits or for other projects for which a permit is required from a governmental agency other than the district, although the municipality shall give the district notice thereof, so that it may appear and represent its position before the governmental agency. See *e.g.,* Ill. Rev. Stat., c. 19, § 364, compared with § 162. On the other hand, such districts may be able to regulate the anchorage, moorage, and speed of vessels *within municipalities.* See, *e.g., Id.* § 354.4, *compared with* § 156, discussed earlier.

[30] *Id.* § 181.

[31] *Id.* § 253.

[32] *Id.* § 286.

[33] See *Id.* §§ 210 to 212, 281 to 283.

[34] See, *e.g., Id.* c. 105, §§ 333.1, 482d.

[35] See Local Government Units, p. 153. See Ill. Rev. Stat., c. 34, § 3001 *et seq.* regarding regional planning commissions.

[36] *Id.* c. 34, § 3003.

Will. The commission is authorized to conduct planning of a wide variety of items. Water-oriented items include water transportation, water supply and distribution, drainage, flood control, and pollution control.[37]

REMEDIES

Remedies for the invasion of a legally-protected water or other right primarily include the recovery of damages for loss incurred as a result of the invasion, or an injunction to prevent further infringement. In some instances, a court of law may order the abatement of a condition that constitutes a nuisance. Various administrative remedies also may be exercised by state or local agencies. These and related subjects are considered below.

Who May Be a Plaintiff

Many water rights may depend upon ownership or right to possession and upon the legal classification of the water source involved. If natural watercourses and riparian rights are involved, except where public rights are involved, the complaining party generally must be a riparian proprietor, or one claiming under him, to be entitled to maintain an action.[1] This includes the owner of the bank of the body of water or watercourse, lessees and owners of rights of way or easements to and from the water's edge, and grantees of riparian owners to the extent of their title.[2] Mere prior occupancy and use cannot create riparian ownership.[3] But riparian ownership may be acquired by prescription — that is, adverse use — for a period exceeding 20 years.[4]

It has been held, in an appellate court decision, that the plaintiff need only prove he was in possession and control of the premises to recover damages for pollution of a stream running through it where he was seeking only "possessory damages" (damage to his stockwater and pasture) rather than for any permanent injury to the land.[5] In the same case, the court stated that no one can directly or indirectly foul or pollute a stream of water, and thereby injure a lower proprietary owner, without being

[37] See Toward New Horizons: Chicago and Its Suburbs Plan Together. Metropolitan Housing and Planning Council, Chicago, Dec., 1957.

Ill. Laws, 1959, p. 1882 *et seq.*, which enables counties contiguous to Cook County to perform certain functions (see note 35, p. 157), requires that plans for projects involving territory served by this commission be submitted to it and any regional planning commission of the county for review and recommendations as to compliance with their plans.

[1] Elgin Hydraulic Co. v. City of Elgin, 194 Ill. 476, 484 (1902).

[2] Indian Refining Co. v. Ambraw River Drainage Dist., 1 F. Supp. 937, 938 (E.D., Ill., 1932).

[3] Bliss v. Kennedy, 43 Ill. 67, 74, 76 (1867).

[4] Indian Refining Co. v. Ambraw River Drainage Dist., *supra.*

[5] Thomas v. Ohio Coal Co., 199 Ill. App. 50, 55 (1916).

liable in damages.[6] It is not clear whether the court was basing its decision on a riparian right or on some other legally protected right. However, it seems that the plaintiff was treated as a riparian proprietor. If this were true, this may indicate that in pollution cases, tenants at will[7] and tenants at sufferance[8] of riparian land, as well as tenants under a valid lease, would be treated as riparian proprietors. But the supreme court has indicated, as noted above, that, except for prescription, one must be a riparian owner or one "claiming under" such an owner, to be a riparian proprietor.

As mentioned earlier, the right to diffused surface-water use in Illinois has been dealt with only in a negative sense, that is, how it may be used without responsibility of others. It would seem that if a person can prove that his legally protected right has been invaded as the result of the wrongful act of another due to improper disposition of diffused surface water, he may maintain an action for damages. To maintain an action in such cases, the plaintiff may be either a dominant or servient proprietor, or other surrounding proprietor.[9] In the nature of things, usually only these persons can prove that they are affected by failure of another to properly "get rid" of his surface water. Ordinarily, suits involving surface waters are between adjoining proprietors. But if the water that is wrongfully discharged flows over another's land before reaching the plaintiff, his cause of action, if any, would lie primarily against the intervening landowner and not the original wrongdoer.[10]

In the case of water pollution, although the right to be free of pollution may be a riparian right or other legally protected right, it may also be a nuisance. In such cases the general law of nuisance applies and any person injured as a result of pollution may maintain an action for damages. The standing to sue in such cases depends upon whether the party can prove injury to himself resulting from the existence of the pollution as a nuisance.[11]

Actions for Damages

The burden of proof is usually on the complaining party to prove an invasion of his rights for which the court will allow damages, and a failure to sustain this burden will result in a failure of the action.[1]

Actual damages. In water-use rights litigation there are two kinds of actionable invasions which may be proved: 1) those which result in actual damage to the complaining party, and 2) those which invade a

[6] *Id.* at 58.

[7] One who holds possession of land with the owner's consent, but without a fixed term.

[8] A tenant who holds over wrongfully, with no rights but naked possession.

[9] Includes lessees and others in rightful possession.

[10] See Springfield v. North Fork Outlet Drainage Dist., 249 Ill. App. 133 (1928).

[11] However, only nominal damages need be shown. See discussion under Pollution, p. 37.

[1] Gilliland v. Mohlenhoff, 86 Ill. App. 443 (1899); Sandusky Portland Cement Co. v. Dixon Pure Ice Co., 221 F. 200, 203 (1915).

legally protected right of the complaining party but from which no actual damage results. If actual damage is present, it may include any cause of action which is covered by the second category.

For alteration in quantity of flow. Where water to which riparian rights attach is concerned, damages may be recovered in certain cases where there is a diminution in the quantity of water. The court seems to base the right to damages upon a test of reasonableness.[2] Whether a particular use is reasonable is a question for determination by a jury,[3] except where the unreasonableness of the action is clearly evident.[4]

Acts which cause a material *increase* in the flow of water, to the injury of lower proprietors, also seem to be actionable invasions of water-use rights which may be redressed in a suit for damages. Such acts are considered to be an unreasonable use of water. The Illinois courts have so held whether a natural watercourse or diffused surface water is concerned.[5] It seems that the action need not depend upon a riparian right but may be based upon a right or easement of drainage, and so long as the water flows from one property to another in accordance with this easement of drainage, no wrong has been committed. The extent of this easement of drainage depends upon the reasonableness of the use, just as does the right against diminution.

The cause of action usually arises as a result of 1) an obstruction of the flow of water by the lower owner, thus causing overflow upon the upper owner, or 2) a diversion of the water from its natural and general course of flow by an upper owner, resulting in an increase in the quantity of water flowing onto an adjoining owner. In both cases the injured party may recover damages for the loss suffered.[6] Where such a diversion is involved, the injured person cannot rely upon a riparian right as the basis of recovery unless the diversion is into a natural watercourse to which riparian rights attach. In such a case the cause of action would not be based upon the original diversion of the water but rather upon the resulting increase in the flow in the stream.[7]

It seems that both upper and lower riparian proprietors, injured as a result of an obstruction of a natural watercourse, may have a cause of action on the basis of their riparian right to have the water flow by their property without unreasonable alteration in quantity, in addition to their cause of action based on the easement of drainage.[8]

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[2] Evans v. Merriweather, *supra.*

[3] Bliss v. Kennedy, *supra.*

[4] See Plumleigh v. Dawson, *supra,* involving, for example, diversion of the flow around the lower owner.

[5] See Pinkstaff v. Steffy, 216 Ill. 406, 412 (1905); O. and Miss. Ry. Co. v. Nuetzel, 43 Ill. App. 108, 118 (1891); Graham v. Keene, 34 Ill. App. 87, 90 (1889).

[6] Pinkstaff v. Steffy, *supra;* Dayton v. Drainage Comm'rs, *supra;* O. and Miss. Ry. Co. v. Nuetzel, *supra;* Ribordy v. Murray, 177 Ill. 134 (1898).

[7] Eckart v. City of Belleville, 294 Ill. App. 144 (1938); Shelby Loan and Trust Co. v. White Star Refining Co., 271 Ill. App. 266 (1933).

[8] Daum v. Cooper, 208 Ill. 391 (1904); Deterding v. Central Illinois Service Co., 313 Ill. 562 (1924); Atherton v. East Side Levee and Sanitary Dist., 211 Ill. App. 55 (1918).

For alteration in quality of flow. A cause of action may arise where there is a substantial alteration in quality. The primary alteration here concerned is pollution. If pollution is in fact found to exist, and the plaintiff can show pecuniary loss as a result of the pollution, he often may recover actual damages.[9]

Alteration of the quality of any water, regardless of source, may be actionable on the basis of nuisance.[10] In addition, pollution of a watercourse may be actionable on the basis of the riparian right to have the waters flow onto one's property without unreasonable alteration in quality.[11]

In pollution cases it seems that an injunction often provides a better remedy than does a suit for damages. Therefore, a more thorough discussion is included later in connection with that remedy.

Another quality right, an invasion of which may be redressed in an action for damages (at least where natural watercourses are concerned), is the right to have the water temperature remain unchanged from its natural state. In *Sandusky Portland Cement Co. v. Dixon Pure Ice Co.*,[12] the court held that the use of such water to cool machinery, and the discharge of the heated water back into the stream, thus keeping ice from forming on the lower proprietor's ice fields, was an unreasonable use of the water and an invasion of the lower owner's riparian rights.

In summary, an action for actual damages would seem to be generally available to redress any monetary loss resulting from the pollution of any waters, regardless of source, or of any other unreasonable use of waters to which riparian rights attach that results in a material alteration of its natural quality.

For invasions of riparian rights. With respect to natural watercourses, there are certain other rights of riparian proprietors in the use of the water, an invasion of which has been held to be actionable, and it seems that actual damages could be recovered if an actual loss is proved. These rights include 1) the right to ingress and egress,[13] 2) the right to hunt, fish, swim, cut ice, and use the water for other recreational and similar purposes,[14] 3) the right to accretions,[15] 4) wharfage rights,[16] and 5) the right, as a riparian proprietor, to have the easement of navigation on navigable waters free of obstruction.[17] Where non-navigable waters are concerned, the riparian proprietor has the exclusive right to go upon the

[9] This aspect of pollution will be discussed more fully in the sections on measure and proof of damages.

[10] Wahle v. Reinbach, 76 Ill. 322 (1875) (groundwater); Barrington Hills Country Club v. Barrington, 357 Ill. 11 (1934) (watercourse); see Sutton v. Findley Cemetery Ass'n, 270 Ill. 11 (1915) (surface water). Also see 24 Ill. L. Rev. 882.

[11] Tetherington v. Donk Bros. Coal Co., 232 Ill. 522 (1908).

[12] 221 F. 200 (1915).

[13] Comm'rs of Lincoln Park v. Fahrney, 250 Ill. 256 (1911); Miller v. Comm'rs of Lincoln Park, 278 Ill. 400 (1917).

[14] Schulte v. Warren, 218 Ill. 108, 118 (1911) and cases cited therein.

[15] Davis v. Haines, 349 Ill. 622, 182 N.E. 718 (1932).

[16] Ensminger v. People, 47 Ill. 384 (1868).

[17] Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469 (1938) and 386 Ill. 433 (1944).

water for any purpose while it is on his property.[18] In addition, the acceleration of the flow of water to the injury of a lower proprietor is actionable.[19]

Nominal damages. In certain cases a court of law will recognize a cause of action even though no monetary loss can be shown. In such instances, "nominal" damages (often, 1 cent, plus court and associated costs) will be awarded.

An early supreme court case[20] which has never been overruled, squarely considered the question of recovery of nominal damages for the invasion of riparian water-use rights. In this case the plaintiff, a lower riparian proprietor, sued the defendant, an upper riparian owner, for erecting a dam in the stream and diverting the water by way of a race to run his mill, and returning the water to the stream below plaintiff's land.

A verdict was returned for the defendant, and plaintiff excepted to instructions which excluded evidence showing the cost of constructing the mill and race of defendant, and the yearly value of the mill, for the purpose of showing at what cost and of what value the plaintiff might make the power available. The plaintiff also excepted to another instruction which stated that if the jury believed, from the evidence, that the diversion of the watercourse by the defendant did not damage the plaintiff up to the time of commencing this suit, they ought to find for the defendant.

The supreme court, in reversing the trial court, said:

> The instruction seems to proceed upon the ground that the plaintiff must have a special damage to entitle him to a recovery for a diversion. I apprehend that this is an erroneous principle. A watercourse begins *ex jure naturae*[21] and having taken a certain course naturally, cannot be diverted . . . so that all, through whose land it naturally flows, may enjoy the privilege of using it for culinary, agricultural, and hydraulic purposes, without adulteration, diminution, or alteration, except so far as it may suffer that diminution by detention for lawful uses above.[22]

The court expressly rejected the view of some courts that in such cases there must be proof of actual damages for a recovery, and held that where a party is deprived of such a right, the law will imply some damage. The court said:

> It is the opinion of the court, that an action will lie for the violation of the right, without proof of actual damages, and, therefore, the instructions were erroneous. . . .
>
> The plaintiffs having proved, very clearly, diversion, the law implies some damage, if it be not justified . . .[23]

It also has been held that nominal damages may be recovered where there has been an invasion of the easement of drainage and no actual

[18] Hubbard v. Bell, 54 Ill. 110 (1870).
[19] Springfield v. North Fork Outlet Drainage Dist., 249 Ill. App. 133, 149 (1928).
[20] Plumleigh v. Dawson, *supra.*
[21] That is, from or by natural right.
[22] Plumleigh v. Dawson, *supra,* at 550.
[23] *Id.,* at 552. This case is also discussed under Alteration of Quantity, p. 31.

damage can be proved. In a 1919 supreme court case[24] the court granted an injunction for the removal of a 15-inch embankment, which was erected by the defendant and was obstructing the flow of water in a natural depression that had been plowed out. The court assumed that an action at law could have been maintained even though only nominal damages could be shown. The court stated that where the injury is frequent and no fair or reasonable redress could be had at law, the offender may be enjoined even though a jury could have awarded only nominal damages.

In an earlier appellate court decision[25] the court held, in a case involving the easement of drainage, that it was reversible error to instruct the jury that the plaintiff must show actual damages to recover (defendant was discharging unnatural quantities of water onto the servient estate). The court expressly stated that a plantiff, in such cases, is entitled to nominal damages at least.

An appellate court also has held that if the natural flow of water is obstructed by the erection of an embankment by the servient owner, the dominant owner could sue for damages and recover at least nominal damages, even though the embankment was constructed wholly on the defendant's land and the plaintiff had in fact suffered no actual damages.[26]

In some water-pollution cases, especially where the pollution consisted of untreated human wastes and was held to constitute a nuisance *per se,* the court indicated that an action for damages could be maintained even though only nominal damages could be shown.[27] A more complete analysis of the considerable body of law regarding nuisances is beyond the scope of the present discussion.

The courts apparently have upheld such cases where only nominal damages are awarded primarily a) to toll the running of the statute of limitations and thus prevent a prescriptive right from arising, and b) to give the complaining party a prior adjudication at law as a basis for subsequent injunctive relief. A judgment at law for nominal damages may satisfy one or both of these purposes. However, these reasons might have little basis in fact 1) if the courts would hold that the statute of limitations can begin to run only where an act is committed that the court is willing to say is an invasion of another's rights, and that this does not occur until he suffers some actual or imminent damage, and 2) if they would follow the modern practice in such cases, which seems to allow an injunction to issue without a prior adjudication at law, as was done in the 1919 case, *Winhold v. Finch,* discussed above.[28]

Acts where no damages are recoverable. In certain instances a party may be damaged as the result of certain acts of another, but there is no legally protected right involved. For example, a riparian owner's use

[24] Winhold v. Finch, 286 Ill. 614 (1919).

[25] Mellor v. Pilgrim, *supra.* This case was on appeal for the second time. The decision on the earlier appeal is found in 3 Ill. App. 476 (1878).

[26] Kasten v. Brinkman, 206 Ill. App. 307 (1917) ("abstract" decision).

[27] See Pollution, p. 37.

[28] See the discussion on the second point under Injunction, p. 205.

of a stream may sometimes be reasonable even though it causes damage or loss to another. Also, in an early case where the defendant filled an artificial ditch which had been constructed across his land by the plaintiff (with the consent of defendant's grantor), the court indicated that the plaintiff would not be allowed damages if he could not show that the ditch was dug along a natural watercourse and therefore constituted a legal burden on the servient estate, even though the plaintiff suffered substantial damage as a result of the act.[29]

In another case the plaintiff and defendant had, by agreement, put a tile across the defendant's land to drain a pond area from the plaintiff's land in a different direction from that in which the water would naturally flow. In this case, an appellate court held that the defendant was not liable for allowing the tile to fill up and cause the loss of the plaintiff's corn crop, since he was not required to keep the tile clean under their agreement.[30] In reversing the trial court's verdict and judgment for $300, the appellate court stated that in the absence of prescription, such damage is *damnum absque injuria* (that is, actual damage but without legal injury) for which no action will lie.[31]

In *Wills v. Babb*,[32] the court held that an injunction would not lie against the maintenance of levees by the defendant to repel waters wrongfully cast upon his land by plaintiff's predecessors, who made a diversion cut that caused the channel of a stream to fill up, with resulting overflow.

These cases seem to indicate that damage caused by acts constituting a revocation of an oral license, or resulting from the correction by one party of a wrongful act being committed by the complaining party, cannot be remedied in an action at law.[33]

Measure of damages. Assuming the remedy of damages is available, it is of next importance to determine the measure of damages in a given fact situation, for if the remedy is such that the injured party is inadequately compensated for his loss, another remedy may be more attractive.

The measure of damages depends first of all on whether the injury is a) permanent, or b) temporary or continuing. If the injury is permanent, only one recovery may be had for past, present, and future injury;[34] if continuing, successive actions for damages may be maintained from time to time as the damages are inflicted.[35] In other words, in an action based on a permanent injury, speculative damages may be proved, whereas in a suit for a temporary injury, damages must be confined to the actual

[29] Johnson v. Cunningham, 56 Ill. App. 593 (1894). Although the decision turned on another point, the court further indicated that the oral license of the defendant's grantor did not estop him from filling the ditch unless it came within the definition of a mutual drain under the drainage act of 1889.

[30] Weidekin v. Snelson, 17 Ill. App. 461 (1885).

[31] *Id.* p. 465.

[32] 222 Ill. 95 (1906).

[33] See also Lacey v. Lacey, 199 Ill. App. 208 (1916).

[34] Krug v. State, 10 Ill. Ct. Cl. 524 (1939).

[35] Baker v. Leka, 48 Ill. App. 353 (1892); Vogler v. Chicago and Carterville Coal Co., 180 Ill. App. 51 (1913); O. and M. Ry. Co. v. Thillman, 143 Ill. 127 (1892).

injury incurred. In addition, a judgment in the former case bars further actions, while in the latter, each new injury is a new cause of action for which a new law suit may be maintained.[36]

It is sometimes difficult to ascertain what constitutes a permanent injury and what constitutes a temporary or continuing one. But from the following cases it seems that a permanent structure (or an act which causes a permanent injury), which may be legally and indefinitely maintained by exercising eminent-domain powers or otherwise, is considered to be permanent, and only permanent damages may be awarded for resulting injury. If the act was lawful, but negligently or improperly performed (or a lawful structure is improperly operated), or if the act itself is unlawful and may be enjoined or damages awarded, it is treated as a continuing or temporary wrong and only actual damages to the time of suit may be recovered for resulting injuries.

The supreme court has held that a dam erected by a city with legislative authority to perpetually maintain the same (by exercising its eminent-domain powers if necessary) is a permanent structure, and an injury resulting from its maintenance is permanent in nature, for which damages may be recovered for past, present, and future loss.[37] Similarly, the Illinois court of claims has held that a dam lawfully constructed by the state is a permanent structure and damages resulting from the overflow caused by the structure must be confined to one recovery.[38]

However, an appellate court has held that even though a structure is built by legislative authority, if overflow damages result from *negligent or improper* construction, the injured party is not bound to assume that the imperfect structure will be permanent, and may bring successive actions for resulting damages until the cause of damage is removed by proper construction.[39]

In another appellate court case it was held that, even though a sanitary district has legislative authority to change a watercourse channel, if defective work causes injury to others it is a continuing nuisance.[40] In another case, overflow caused by improper operation of water gates was treated by the court of claims as a continuing nuisance.[41]

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[36] *Ibid.*

[37] City of Centralia v. Wright, 156 Ill. 561 (1895).

The court noted that the city, under the general statutes, had authority to establish a system of waterworks and acquire and hold all necessary lands by purchase, lease, condemnation, or otherwise, and to construct a suitable dam on the lands acquired. The city had merely leased a waterworks plant for 20 years but the court noted that "when the lease expires it is not bound to surrender the plant . . . but it may condemn the lands, and thus acquire the absolute title, and continue for all time, if it so desires." See Local Government Units, p. 153, for a general discussion of relevant powers of municipalities.

[38] Krug v. State, *supra*, citing cases. Also see the supreme court cases cited in I.C.R.R. Co. v. Ferrell, 108 Ill. App. 659, 667-668 (1902).

[39] Bernhardt v. Baltimore and O. S. W. R.R. Co., 165 Ill. App. 408 (1911). See also Strange v. Cleveland C. C. and St. L. Ry. Co., 245 Ill. 246 (1910).

[40] Atherton v. East Side Levee and Sanitary Dist., *supra*.

[41] McCarty v. State, 2 Ill. Ct. Cl. 100 (1909).

In *Baker v. Leka*[42] an artificial ditch was constructed across the plaintiff's property without his consent, and it drained water in a course in which it would not naturally flow. The appellate court held it was an unlawful act which could be abated. Therefore, it was not a permanent source of injury but a continuing nuisance for which successive actions for damages may be maintained. The court added:

It is true that cases are to be found where the owners of land have treated a structure as a source of permanent injury and brought suit for and recovered both present and future damages, though such structure was unlawful and subject to abatement by legal action. When a structure is in its nature permanent it seems that one damaged thereby may elect to treat it as permanent in law, though he might abate it as a nuisance, and may sue for and recover damages, present and prospective. If he does so recover he is to be regarded as having consented to its continuation and both he and others holding through or under him are denied the right of further suit for the recovery of damages.[43]

In another case an appellate court said that, when there is no complete destruction and damages are not so continuous and certain in character as to enable a jury to give compensation at once for the entire injury, and the injury is in the nature of a continuing nuisance, successive actions may be maintained.[44]

The courts have treated the following as causing permanent injuries: a) a permanent dam constructed by a city, b) a permanent dam[45] and embankment[46] built by the State lawfully and without negligence, and c) the permanent lowering of an artificial drainage canal by a sanitary district, diminishing the flow of water to lower riparian proprietors.[47]

Temporary or continuing injuries for which actual damages have been awarded include: a) using more than one's rightful share of the waters in a watercourse;[48] b) a negligently and improperly built dam (built under legislative authority);[49] c) a defectively constructed artificial channel changing a watercourse channel, although done with proper authority;[50] d) overflow caused by wrongful construction of an artificial ditch;[51] e) overflow caused by improper operation of water gates;[52] f) unlawful quarrying of stone from a portion of the Rock River bed owned by a riparian proprietor;[53] g) unlawful cutting of ice opposite a riparian proprietor's property;[54] h) changing the grade of streets by a city, causing

[42] 48 Ill. App. 353 (1892).
[43] *Id.* at p. 359. Also see Strange v. Cleveland C. C. and St. L. Ry. Co., *supra.*
[44] Mellor v. Pilgrim, *supra,* at p. 481.
[45] City of Centralia v. Wright, *supra.*
[46] Krug v. State, *supra.*
[47] Beidler v. Sanitary Dist., 211 Ill. 628 (1904).
[48] Canal Trustees v. Haven, 11 Ill. 554, 558 (1850).
[49] Bernhardt v. Baltimore and O. S. W. R.R. Co., *supra.*
[50] Atherton v. East Side Levee and Sanitary Dist., *supra.*
[51] Baker v. Leka, *supra.*
[52] McCarty v. State, *supra.*
[53] Braxton v. Bressler, 64 Ill. 488 (1872).
[54] Piper v. Connelly, 108 Ill. 646 (1884); Washington Ice. Co. v. Shortall, 101 Ill. 46 (1881).

water damage;[55] i) overflow caused by improper construction of an embankment;[56] j) deposit of coal slack on a lower proprietor's property as the result of breaking of a settling basin dam;[57] k) unlawful removal of sand and gravel from a river bed to the injury of an adjacent riparian proprietor; [58] l) improper overflow caused by a city's installation of pavement and sewers;[59] m) overflow caused by improper tiling by an upper owner;[60] n) improper discharge of drainage waters;[61] o) unlawful running of mine wash into a creek, causing overflow;[62] and p) pollution.[63]

In one pollution case the court said that:[64]

The principle of law which contemplates that damages sustained for a permanent injury to land shall be recovered in one action is applicable only to those cases where the party or agent committing the injury acts within the authority of the law. In this case, when the sewage of the defendant city, or any part thereof, though combined with sewage or deleterious waters from other sources, was cast upon the lands of appellees or mingled with the waters of a stream running over the same, so that a nuisance was created as to appellees and they were injured thereby, such act of the defendant was unlawful and it could not be sanctified by time. Nor could it be said that such a nuisance was a permanent one, for it would be the duty of its authors to have it abated. . . .

If, however, it be regarded that the eight-inch tile across appellees' land was originally provided as a satisfactory arrangement for the carrying off of this objectionable sewage, but, as a matter of fact, it subsequently became inadequate for such purpose, even then appellees would not be precluded from obtaining relief, upon proof of such inadequacy and damage resulting therefrom, and a prior judgment for damages would be no bar to the present action. In such case, appellees would not be bound to assume that the provision made to protect them from damage, if found to be inadequate, would be a permanent one, but it would be the duty of the proprietors of the land above them, who sought to cast this burden upon appellees' land, to make whatever provision was necessary to save them free from injury, and the moment that this was not done a right of action would be created in appellees.

The measure of damages for a permanent injury has been held to be the difference between the fair cash market value of the damaged property

[55] City of Elgin v. Kimball, 90 Ill. 356 (1878).

[56] C. P. and St. L. Ry. Co. v. Reuter, 119 Ill. App. 232 (1905); St. Louis Bridge Ry. Ass'n v. Schultz, 226 Ill. 409 (1907); O. and M. Ry. Co. v. Thillman, 143 Ill. 127 (1892).

[57] Tetherington v. Donk Bros. Coal Co., *supra.*

[58] Sikes v. Moline Consumers Co., 293 Ill. 112 (1920).

[59] Dwyer v. Village of Glen Ellyn, 314 Ill. App. 572 (1942).

[60] Young v. West, 130 Ill. App. 216 (1906).

[61] Mellor v. Pilgrim, *supra.*

[62] Vogler v. Chicago and Carterville Coal Co., *supra.*

[63] Lamore v. State, 20 Ill. Ct. Cl. 149 (1950); McComb v. State, 11 Ill. Ct. Cl. 580 (1941); Eckart v. City of Belleville; 294 Ill. App. 144 (1938); Barrington Hills Country Club v. Barrington, *supra;* Springfield v. North Fork Outlet Drainage Dist., *supra;* Johnston v. City of Galva, 316 Ill. 598 (1925); Buckles v. City of Decatur, 234 Ill. App. 89 (1924).

[64] City of Kewanee v. Otley, 204 Ill. 402, 412-413 (1903). See Injunction, p. 205, regarding injunctive relief in such cases.

prior to the injury and the fair cash market value of the same property subsequent to, and as affected by, the injury.[65] The court of claims has expressly held that an award of permanent damages could not be given on the basis of the value of crop losses, and dismissed a claim based upon such a measure of damages.[66] In another case setting out the above measure of damages, the supreme court stated that the true measure of damages was not the expense incurred by the injured parties in protecting their rights.[67]

The measure of damages for a temporary or continuing injury is the actual loss incurred up to the time of the commencement of the suit.[68] Such awards are probably more common in water-use conflicts than are awards of permanent damages. Such injuries include: a) value of the use of one's proportionate share of water of a stream,[69] b) damage to or loss of crops;[70] c) value of specific property taken such as ice,[71] sand and gravel,[72] or stone;[73] d) loss by water damage to stored goods;[74] e) erosion of lands;[75] f) value of draintile made useless;[76] g) loss caused by making land unfit for cultivation;[77] h) loss of use of land for pasture and of water;[78] i) the killing of fish;[79] j) creation of foul odors;[80] k) loss caused by disease and poor health of cattle resulting from polluted water;[81] l) loss of milk resulting from loss of pasture;[82] and m) labor for driving animals back and forth to other water.[83]

Where a riparian proprietor has been deprived of the use of water in a stream due to another's wrongful use or diversion of the water flowing through his property, the measure of damages is the value of such use of the water of the stream.[84]

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[65] Krug v. State, *supra,* at 533; Beidler v. Sanitary Dist., *supra.*

[66] Krug v. State, *supra.*

[67] Beidler v. Sanitary Dist., *supra,* at 639.

[68] See cases cited above regarding temporary or continuing injuries.

[69] Canal Trustees v. Haven, *supra.*

[70] McCarty v. State, *supra;* St. L. Bridge Ry. Ass'n v. Schultz, *supra;* Young v. West, *supra;* C. P. and St. L. Ry. Co. v. Reuter, *supra;* O. and M. Ry. Co. v. Thillman, *supra;* Baker v. Leka, *supra.*

[71] Washington Ice Co. v. Shortall, *supra;* Piper v. Connelly, *supra.*

[72] Sikes v. Moline Consumers Co., *supra.*

[73] Braxton v. Bressler, *supra.*

[74] City of Elgin v. Kimball, *supra.*

[75] Dwyer v. Village of Glen Ellyn, *supra.*

[76] *Ibid.*

[77] Tetherington v. Donk Bros. Coal Co., *supra.*

[78] Lamore v. State, *supra;* Johnston v. City of Galva, *supra.*

[79] Eckart v. City of Belleville, *supra.*

[80] *Ibid.*

[81] Buckles v. City of Decatur, *supra.*

[82] Johnston v. City of Galva, *supra;* Lamore v. State, *supra.*

[83] *Ibid.*

[84] Where a riparian proprietor who was using streamwater for milldam purposes owned only one bank of the stream, the court said the proper measure was the value of the use of only one-half of the water of the stream for such purpose — without the unauthorized dam built entirely across it. Canal Trustees v. Haven, *supra,* at 558. It seems the measure might be even less if rights of upper and lower owners are considered.

Where the injury is the destruction of immature crops, the measure of damages is their market value, which is fixed at the value of the crops as they were when destroyed, together with the value of the right of the owner to mature and harvest them.[85] An appellate court has said that when planted crops are destroyed before visible growth, the measure of damages is the rental value of the land, the cost of the seed used, and the value of the labor expended in planting the crop.[86]

The measure of damages for wrongful taking of ice is the value of the ice as soon as it is cut and ready for removal.[87] Such valuation is not to be made with reference to a particular situation or convenience of one person or another. For example, the fact that the plaintiff has a storage house nearby is not to be taken into consideration.[88]

In determining damages for the taking of sand and gravel, the value is fixed at the market value as removed, and the defendant is not entitled to an allowance for the expense of pumping the sand and gravel onto the barge.[89]

It seems that an injured party need not take affirmative action to mitigate the damage resulting from the defendant's wrongful invasion of his water-use rights constituting a nuisance. The court so held in a water-pollution case.[90] In that case it was held that the plaintiff need not fence off a polluted stream from his pasture so that it could not be used for grazing, thus reducing the damage he would suffer. The court said: "The rule requiring the injured party to protect himself from the consequences of the wrongful act of another by the exercise of ordinary effort, care and expense on his part does not apply in cases of nuisances."[91]

The Sanitary Water Board Act,[92] which gives the Sanitary Water Board the right, after consultation with the Department of Conservation, to bring an action for damages through the Attorney General against a violator of the act, sets out the measure of damages as the reasonable value of the fish or aquatic life destroyed as a result of the violation.[93]

When a temporary injunction is dissolved or partially dissolved, the defendant is entitled to recover as damages the expenses he reasonably incurred in getting the injunction dissolved. This may include the attorney's fee, necessary fees and charges paid to a civil engineer to make a survey, and costs of making necessary plats to be introduced in evidence. For a partial dissolution, he may recover a proportionate amount.[94]

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[85] St. Louis Bridge Ry. Ass'n v. Schultz, *supra,* at 415.

[86] Young v. West, *supra,* at 218. Also see Grommes v. Town of Aurora, 37 Ill. App. 2d 1 (1962) regarding damages to cropland resulting from the obstruction of drainage by a highway.

[87] At this point it becomes personal rather than real property. Washington Ice Co. v. Shortall, *supra;* Piper v. Connelly, *supra,* at 655.

[88] Piper v. Connelly, *supra,* at 655.

[89] Sikes v. Moline Consumers Co., *supra,* at 125.

[90] Johnston v. City of Galva, *supra.*

[91] *Id.,* pp. 602-603.

[92] Ill. Rev. Stat., c. 19, §§ 145.1 to 145.18.

[93] *Id.* § 145.13.

[94] Lambert v. Alcorn, 144 Ill. 313, 328, 329 (1893).

Proof of damages. As stated earlier, the burden of proving an invasion of a water-use right is on the complaining party. This burden includes the showing of damages by a preponderance of the evidence.[95]

In cases where the plaintiff is entitled to recovery without proof of actual damage, the burden of proof for the recovery of *nominal* damages is satisfied by the plaintiff's proving an invasion of his rights. But in cases where actual damages must be proved, if the proof is insufficient the cause of action will fail. Where there is inadequate proof, the trial judge may reduce the amount of damages which a jury has awarded.[96] The proof of damages must be sufficient to refute a contention that the verdict is excessive.[97]

The proof must show that the damages were the proximate result of the defendant's wrongful act, but mere difficulty of ascertainment will not bar recovery. The language of the court in *Johnston v. City of Galva* is squarely in point. The court said:[98]

Damages must, however, be the proximate result of the wrong of which the complaint is made. Where the right of recovery exists the defendant cannot escape liability because the damages are difficult of exact ascertainment. The nature of the injury in the instant case [stream pollution] is such that it is difficult, if not impossible, to ascertain with mathematical certainty the amount of the defendant-in-error's damages, but this difficulty affords no answer to a cause of action which results from a breach of duty imposed by law. The unliquidated damages growing out of the commission of a tort [personal wrong] are seldom susceptible of exact measurement. The rule is that while the law will not permit witnesses to speculate or conjecture as to possible or probable damages, still the best evidence which the subject will admit is

[95] Sandusky Portland Cement Co. v. Dixon Pure Ice Co., 221 F 200 (1915). See instruction given by trial court in Tetherington v. Donk Bros. Coal Co., *supra*.

[96] See Tetherington v. Donk Bros. Coal Co., *supra* (reduction by trial judge to $2,500 from a $3,000 jury verdict); Johnston v. City of Galva, *supra* (reduction by trial judge to $2,500 from a $4,000 jury verdict).

[97] In an appellate court case (C. P. and St. L. Ry. Co. v. Reuter, *supra*) the appellate court held that a verdict and judgment of $1,625.41 for crop loss in 1902 caused by overflow resulting from the defendant's wrongful obstruction of a watercourse, was not excessive when based on the following evidence: The entire loss of 55 acres of wheat in the shock, and the loss of all but six or seven bushels per acre (good for chicken feed only) of 30 acres of standing wheat, where all would otherwise have yielded 35 bushels per acre at 68 to 70 cents per bushel; and the entire loss of 20 acres of oats ready to cut, which would have yielded 40 bushels per acre at 40 cents per bushel, or a total value of approximately $2,400 ($85 \times 35 \times 70¢ =$ approx. $2,080; $20 \times 40 \times 40¢ = \$320$) less harvesting costs of $200 = $2,200 net loss. It is interesting to note, in connection with the measure of damages, that the measure here used (and acquiesced in by the appellate court) for determining the value of matured unharvested crops was the market value of the harvested crops, less the cost of harvesting. Other examples of judgments for damages obtained and sustained on appeal include Eckart v. City of Belleville, *supra* ($1,000 to each plaintiff in 25-mile area of stream pollution); St. Louis Bridge Ry. Ass'n v. Schultz, *supra* ($999 for overflow damages to crops caused by wrongful erection of embankment in natural watercourse); Tetherington v. Donk Bros. Coal Co., *supra* ($2,500 for making 25 acres of land unfit for cultivation by breakage of settling basin dam causing deposit of coal slack thereon).

[98] *Supra* pp. 603-604.

receivable, and this evidence is often nothing better than the opinions of persons well informed upon the subject under investigation. Some of the evidence adduced by the defendant-in-error to establish the items claimed was merely speculative and conjectural and should not have been admitted. There was, however, sufficient competent evidence concerning these items to warrant the submission of the cause to the jury.[99]

In the above case the injured party offered evidence, which was admitted, claiming damages for a five-year period during which time he owned approximately 12 cattle, 15 horses, 100 hogs, and milked five to seven cows. His claim included: a) the cost of hay and grain fed to milk cows from May to October when the cows were in drylot because of the pollution: $450 annually; b) loss of milk because of required drylot feeding, 30 to 35 quarts per day at 10 cents per quart (market price): $450 annually; c) $125 for labor and $375 for his own time for driving the horses to and from water since they refused to drink from the polluted stream: $500 annually; and d) the value of three horses which died of lockjaw during the period of pollution: $750.

The court felt that all of these items were supported by the evidence except item (d). The court held that there was a failure to establish that the polluted stream was the cause of the lockjaw and that "where resort must be taken to speculation or conjecture for the purpose of determining whether damage results from the wrongful act of which complaint is made or from some other cause, damages cannot be allowed."[100] The case was reversed and remanded to the lower court on the ground that the admission of evidence as to the value of the horses was reversible error.

As mentioned earlier, damages in water-use rights cases are often difficult to ascertain. If there is no direct proof of the monetary loss suffered, opinion evidence must be relied on. These opinions, to be classified as something more than mere speculation and conjecture, should be made by someone well versed in the subject matter.[101]

Expert testimony may be used to advantage in such cases, and in some cases it may be the sole basis for a recovery. It is generally accepted as competent evidence and a jury will be allowed to return a verdict based on nothing more. For example, in a recent circut court decision a case was sent to the jury to determine the plaintiff's damages, with no evidence of valuation of loss other than by expert (and layman) opinion testimony.[102]

[99] "Stream pollution" and "personal wrong" are authors' insertions.

[100] *Supra,* pp. 604-605. Although a physician had testified that the horses might have obtained tetanus germs from the polluted stream through open sores, a veterinarian testified that he had attended one of the horses and found no sores on the animal, and that tetanus germs were most commonly found in garden and barnyard soils. Other witnesses testified similarly. There was no evidence showing sores on the horses and no evidence showing that they were more likely to contract lockjaw from the stream than from other places on the farm.

[101] See Johnston v. City of Galva, *supra.*

[102] People *ex rel.* Sanitary Water Board v. Sycamore Preserve Works, Gen. No. 55-191 (DeKalb Cir. Ct., Dec. 1956). The facts of this case were recorded by one of the authors in attendance at the trial.

In that case, the Sanitary Water Board sued the Sycamore Preserve Works (as authorized by statute)[103] for $5,000 damages, the alleged value of fish and aquatic life destroyed as a result of alleged pollution of the Kishwaukee River on and before August 17, 1955, by the defendant, a corn-canning company.[104]

It seems that expert testimony is important in this kind of case, and if it is the best evidence available considering the nature of the case, the courts will admit it and allow its use by a jury to determine damages. The important thing in presenting the evidence is to make certain that evidence indicating monetary loss also shows that the loss is proximately caused by the wrong for which complaint is made.

Injunction

A court may issue an injunction to restrain someone from doing an unlawful act or, in appropriate cases, it may order him to do something, in which case it is termed a mandatory injunction.[1] The equitable remedy of injunction available in a *court of equity,* historically has been available only when a *court of law* cannot adequately compensate for loss from a given wrongful act. This rule was strictly followed in earlier cases.

[103] ILL. REV. STAT., c. 19, § 145.13.

[104] Confining a discussion of the evidence to that offered in proof of damages, the following is pertinent: A) Testimony by a state sanitary engineer that on Aug. 18, 1955, he examined the polluted area, a 2-mile portion of the river; that he did not attempt to count the dead fish; that he estimated from 2,000 to 4,000 fish and 150,000 to 200,000 minnows had been killed; and that 90% of these fish were rough fish (carp and suckers) and 10% were game fish (bass, walleyes, and northerns). B) Testimony by a state fish biologist that on Aug. 19, 1955, he made shock tests of the 2-mile area and found almost a complete kill of fish; that the rough fish were worth 10¢ each, the game fish 25¢ each, and the minnows 2¢ each to commercial fishermen; and that the value to the community, of fishermen coming into the community was in excess of $5 per day per fisherman, based on federal statistics. The jury returned a verdict for the plaintiff and awarded damages of $1,100. The evidence offered to show the pollution, and death of the fish as the proximate result thereof, was also based primarily upon the testimony of these two experts and one other expert, a state chemist.

Another example of the kind of evidence necessary to sustain the burden of proof of damages is found in Lamore v. State, *supra.* Here three plaintiffs were claiming damages resulting from the pollution of a creek. Damages were awarded on the basis of the following facts and figures:

Plaintiff 1: 35 acres of ground affected during 1947 and 1948. Livestock had to be removed for 3 months and be dry fed, resulting in loss of milk production. Ninety days dry feed for 12 head at 25¢ per day per head = $270 per year, or $540. Loss of 36 cans of milk per year for 2 years at 64 lbs. per can with milk at $5 per 100 pounds or (72 × 64 = 4,608) × 5/100 = $230. $540 + $230 = $770 total.

Plaintiff 2: Loss of use of ground for pasture for 1947 and 1948 = $648 total.

Plaintiffs 3 (landowner and tenant): Owner lost $12 per acre per year rent on 29 acres of pasture for two years ($696). Tenant had to purchase extra feed for 30 cows for two years ($1,350), and lost one can of milk per day for two 90-day periods (180 × 64 × 5/100 = approximately $580) but was allowed $12 per acre per year on the pasture by the owner ($696), or $1,350 + $580 − $696 = $1,234 total.

[1] An injunction may either be permanent or temporary. For a general discussion of injunctions in Illinois, see U. OF ILL. L. FORUM (1954), p. 68.

In one early case involving the easement of drainage,[2] the defendant asked for an injunction on the basis of a nuisance which he claimed caused him permanent and irreparable injury. The case involved diversion of surface water from its natural direction of flow by means of an artificial ditch. It was shown that the damage was not irreparable, and witnesses testified that $200 would fully compensate for any injury suffered.

The court, in affirming a decree dismissing the bill, went on to say:

> We admit a court of chancery [equity] will sometimes relieve by injunction, though a suit at law may be maintained for the injury, but this is not one of those cases. It is a naked case for damages at law, if any action at all can be maintained on the facts as proved.[3]

In early cases it also was often stated that a court of equity would not act in the absence of a prior adjudication at law.[4]

Howell Co. v. Pope Glucose Co.[5] involved the respective rights of millowners to the use of water for power. The court there said that an injunction commanding these owners not to use more than their just proportion of water would be very difficult to enforce. It said a court should grant an injunction only when the subject is clear, definite, and certain; that damages in a court of law are generally sufficient, although if it is determined that a great and irreparable injury shall be caused, an injunction will then lie.[6] It said equity will not interfere to settle and adjust the rights of parties to the use of water, nor to determine how much each is entitled to use, unless the plaintiff's rights have been previously established at law.[7] This reasoning on the part of the early court apparently was based on the established rule that a jury (rather than the judge) ordinarily should determine whether or not a particular use of the water by one user was unreasonable in relation to others and therefore actionable.[8]

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[2] Laney v. Jasper, 39 Ill. 46 (1865).

[3] *Id.*, at 54; "equity" inserted by authors.

[4] Bliss v. Kennedy, *supra*. Some courts, notably circuit courts, may act as courts of both equity and law. But they may need to try certain issues acting as one or the other, depending on the nature of the issue or of the relief requested.

[5] 171 Ill. 350 (1898).

[6] *Id.*, at 357.

[7] *Id.*, at 356.

[8] Bliss v. Kennedy, *supra*, and Evans v. Merriweather, *supra*. See also the appellate court decision of the *Howell* case, *supra*, in 61 Ill. App. 593 (1895) (question of unreasonableness must first be determined by jury). In the early case of Bliss v. Kennedy, *supra*, the court said that an injunction might be granted without a prior determination at law to enforce a contractual agreement between riparian owners. It also said that a *temporary* injunction might be granted "for the purpose of preserving property until a legal decision on the rights set up can be had . . . but in all such cases the party complaining must show a strong *prima facie* case in support of the title which he asserts, and to show that he has not been guilty of any improper delay in applying for the interposition of the court. And the court has also to consider the degree of inconvenience and expense to which granting the injunction would subject the defendant in the event of his being found to be in the right." In any event, a prior adjudication at law apparently could be waived by the parties (see Sandusky Portland Cement Co. v. Dixon Pure Ice Co., *supra*).

However, even before the time of the *Howell* decision, the supreme court had begun to modify the requirement of a prior adjudication at law before the remedy of injunction was available.[9] In 1894, four years before the decision in the *Howell* case, the supreme court, in affirming the appellate court's reversal[10] of a trial court decree dismissing a bill for an injunction against pollution, said:[11]

The decree of the Circuit Court dismissing the bill is sought to be sustained on the ground that before the complainant is entitled to an injunction, he must bring his suit at law and have his right determined by a jury. While it is a general rule, and one which was formerly enforced with very considerable strictness, that, before a court of equity will interfere by injunction to restrain a private nuisance, the complainant must establish his right in a court of law, that rule has in modern times been somewhat relaxed. In *Oswald v. Wolf,* 129 Ill. 200, in discussing this branch of equity jurisdiction, we said: "Even this power was formerly exercised very sparingly and only in extreme cases, at least until after the right and question of nuisance had been settled at law. While in modern times the strictness of this rule has been somewhat relaxed, there is still a substantial agreement among the authorities, that to entitle a party to equitable relief before resorting to a court of law, his case must be clear, so as to be free from all substantial doubt as to his right to relief."[12]

The court stated that it was too plain to admit of reasonable doubt that sewage discharge from a village of 1,600 inhabitants into a small stream would materially pollute the water and make it unfit for domestic use for at least a few rods below the point of discharge. It said such facts entitled the complainant to an injunction without a prior adjudication at law, for such disposition by the village of its sewage would in law constitute a nuisance *per se* (that is, by itself, without more).[13]

It seems that a court could issue an injunction in other instances of interference with water rights if such interference constituted a nuisance *per se.*[14]

In the cases of overflow caused by the obstruction of a natural watercourse, fishing or hunting on waters overlying another's privately-owned bed, and other invasions of water rights that are held to constitute a direct physical trespass to the property of the injured party, the court has usually assumed that an injunction will lie without a prior adjudication

[9] As early as 1875 the court stated, in Wahle v. Reinbach, *supra,* that a court of equity will act with reluctance in abating a nuisance, and seldom until it has been found to be such by a jury, but where the injury is in its nature irreparable, courts of equity will interfere by injunction without a prior adjudication at law (case involving pollution of groundwater).

[10] Hayes v. Village of Dwight, 49 Ill. App. 530 (1893).

[11] Village of Dwight v. Hayes, 150 Ill. 273 (1894).

[12] *Id.,* at 278.

[13] The appellate court, in earlier deciding the same case, had held that a nuisance *per se* could be enjoined without a prior adjudication at law and that the discharge of sewage into a creek running through the plaintiff's land was, as to him, a nuisance *per se.* Hayes v. Village of Dwight, *supra,* at 536.

[14] See Hubbard v. Bell, 54 Ill. 110 (1870) (obstruction).

at law.[15] In some cases it has stated as a rule of law that an injunction would lie.[16] In others it has said an injunction would lie to prevent a multiplicity of suits even though only nominal damages could be awarded for a mere technical trespass.[17] It would seem that such an approach also might be taken in some cases that may not involve a direct physical trespass, but where the act complained of is held to be clearly unlawful as a matter of law.[18]

The following excerpt from a New Jersey case[19] was quoted by the Illinois supreme court,[20] in a case involving pollution of a watercourse, as "presenting a clear and correct exposition of the principles of law applicable in cases analogous to the present":

Every owner of land through which a stream of water flows is entitled to the use and enjoyment of the water, and to have the same flow in its natural and accustomed course, without obstruction, diversion or corruption. The right extends to the quality as well as the quantity of the water. The court of chancery has a concurrent jurisdiction with courts of law, by injunction, equally clear and well established in cases of private nuisances, and it is a familiar exercise of the power of the court to prevent, by injunction, injuries to watercourses by obstruction or diversion . . . A disturbance or deprivation of that right "[to the use and enjoyment of the water in its natural state]" is an irreparable injury, for which an injunction will issue . . . Where the nuisance operates to destroy health or to diminish the comfort of a dwelling, an action at law furnishes no adequate remedy and the party injured is entitled to protection by injunction . . . It is urged that the right of the complainant is not clear, and must therefore be fully established at law before an injunction will issue. Where the complainant seeks protection in the enjoyment of a natural watercourse on his land, the right will ordinarily be regarded as clear, and the mere fact that the defendant denies the right by his answer or sets up title in himself by adverse use will not entitle him to an issue before the allowance of an injunction.

The Illinois court then said that in an earlier case it had held that "where the facts establishing a nuisance were clear and there was no substantial doubt as to the right of relief against an existing nuisance, equity would assume jurisdiction in the first instance."[21] It added that the granting of an injunction rested in the sound discretion of the lower court, and

[15] See Baumgartner v. Bradt, 207 Ill. 345 (1904); Schulte v. Warren, 218 Ill. 108 (1905); Wilton v. Van Hessen, *supra* (1911); Winhold v. Finch, *supra;* Town of Bois D'Arc v. Convery, 255 Ill. 511 (1912); and Hicks v. Silliman, 93 Ill. 255 (1879).

[16] Baumgartner v. Bradt, *supra;* Winhold v. Finch, *supra;* Hicks v. Silliman, *supra* (1879) (obstruction and overflow).

[17] Winhold v. Finch, *supra* (overflow); Schulte v. Warren, *supra,* and Wilton v. Van Hessen, *supra* (right to hunt and fish on water). Also see cases discussed under Balancing the Equities or Conveniences, p. 209.

[18] See Actions for Damages, p. 192, for a more detailed discussion of clearly unreasonable or wrongful acts. But it appears that an injunction is not a matter of right in such cases. See discussion of Haack v. Lindsay Chemical Co. under Balancing the Equities or Conveniences, p. 209.

[19] Holaman v. Boiling Spring Bleaching Co., 14 N. J. Eq. 335.

[20] City of Kewanee v. Otley, *supra,* at 409.

[21] Citing Village of Dwight v. Hayes, *supra.*

its action could not be disturbed in the absence of clear proof of an abuse of such discretion.

It seems, then, that the following general rules have evolved regarding the availability of the remedy of injunction against invasions of water-use rights. A court of equity may grant an injunction, where there has been a prior judgment at law, if it is shown that the remedy of damages is inadequate and the injured party will suffer irreparable damages unless relief is granted. A court of equity may grant an injunction, without a prior adjudication at law, if the complainant's right is clear and the disturbance or deprivation of the right by the defendant is an irreparable injury at law. If it is a question of reasonableness of use, the court will usually require a prior adjudication at law to allow a jury to say whether the particular acts complained of are unreasonable. But if the act is clearly unlawful, such as a continuing and direct trespass, the maintenance of a continuing nuisance, and certain types of obstruction, diversion, or use of a watercourse, the court may issue an injunction without a prior adjudication at law, and in some cases without proof of any material damage, for such reasons as to prevent repetitious lawsuits or prescriptive rights from arising.

In cases where an injunction will lie, the remedies of damages and injunction are concurrent and not exclusive,[22] and an injured party may elect to sue in equity for an injunction, at law for damages, or both.[23] In addition, a prior determination at law will not bar a suit to enjoin a continuing injury,[24] although it may if the wrong was of a permanent nature and damages have already been recovered for the act complained of.[25]

Balancing the equities or conveniences. The availability of the remedy of injunction is further complicated, however, by the question of whether or under what circumstances the courts might invoke the doctrine variously called "balancing" or "weighing the equities" or "balancing the conveniences."

In 1934, the supreme court rejected a contention of the defendant village that an injunction should not issue against stream pollution because large sums had been spent on the village's sewer system[26] in comparison with the small, if any, damage suffered by the complainant. The court said "conveniences have never been balanced in this state and equities have never been weighed where a private right or private property was sought to be taken by other than due process of law and the party injured

[22] Barrington Hills Country Club v. Village of Barrington, *supra.*

[23] City of Kewanee v. Otley, *supra.*

[24] *Id.*, pp. 410-11. The court said that the pollution of a stream was a continuing, not a permanent, injury, because the polluter had the duty to abate the resulting nuisance.

[25] See earlier discussion of questions regarding temporary, continuing, or permanent damages under Measure of Damages, p. 197.

[26] Another similar factor considered by courts in other states that have invoked this doctrine is the inconvenience that the injunction would cause to a large population.

sought to enjoin such taking."[27] This and other cases have held that pollution and other invasions of water rights constitute a taking of property.[28]

However, views such as those expressed in some of the following cases may make some inroads on the above statements. In a 1950 water pollution case, an appellate court, in a case transferred from the supreme court,[29] held that an injunction would not lie because the defendant had shown no actual and substantial injury. The court, quoting from a 1936 supreme court decision that did not involve water resources, said:[30]

> If the damages are of a nature which cannot be adequately compensated for in a suit at law, equity will afford relief by injunction. On the other hand, lawful and useful business may not be stopped on account of trifling or imaginary annoyances which do not constitute real injury.[31]

The appellate court also cited a 1946 supreme court decision. In that case, the court said that a court of equity need not grant an injunction as a matter of course even though the invasion of a legal right has been established at law, but it "will consider all the circumstances, the consequences of such action, and the real equity of the case." It added that it is the first duty of a court of equity to consider the equities of any case before it.[32] But the court did not expressly consider the doctrine of "balancing" the equities or "conveniences" and, as the court found that the air pollution was inconsequential and caused only nominal damage, it did not have to decide to what extent, if any, such a doctrine should or could be applied if the damage were substantial. The case has been cited for the proposition that a showing of actual or substantial damage, and not merely a technical, inconsequential, or speculative wrong, is required to warrant

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[27] Barrington Hills Country Club v. Village of Barrington, *supra.* See also regarding water pollution, Shelby Loan Co. v. White Star Refining Co., 271 Ill. 266, 269 (1938), and see Shontz v. Metzger, 186 Ill. App. 436 (1911), where an appellate court approved a mandatory injunction to remove an obstructing levee even though the resulting damage to the defendant would be greater than the benefit to the complainant.

[28] See also City of Kewanee v. Otley, *supra.*

In Johnston v. City of Galva, *supra,* the court said riparian rights could not be taken by a polluter other than by due process of law even though the sewer system "is an agency for the protection of the health of a city's inhabitants."

[29] Clark v. Lindsay Chemical Co., 341 Ill. App. 316 (1950).

[30] This language had been quoted from Klumpp v. Rhoades, 362 Ill. 412 (1936). See also Union Drainage Dist. v. Manteno Limestone Co., 341 Ill. App. 353, 368 (1950).

[31] An appellate court used a similar approach in a 1959 case where there was only speculative and anticipated damage, the court indicating that such cases could be brought to the attention of the Sanitary Water Board which had special statutory power to take action in such cases. See *Dunlap Lake Prop. Owners Ass'n v. City of Edwardsville,* discussed under Prior Determination by Administrative Agency, p. 216.

But see 39 ILL. BAR J. 195 (1950) for the view that such approaches do not necessarily mean the courts have adopted the doctrine of balancing the equities or conveniences. *Cf.* 42 ILL. L. REV. 246 (1947).

[32] Haack v. Lindsay Chemical Co., 393 Ill. 367 (1946).

the granting of an injunction.[33] But this proposition appears not to have been mentioned in any later reported court decision concerning the doctrine of "balancing the equities."[34]

The court has employed the balance-of-convenience doctrine in denying an injunction in some other cases that did not involve water resources.[35] But in a 1908 case the court explained that two such previous cases[36] involved situations where the rights or facts were unclear or the injury was speculative.[37] The court said, "If the existence of a private right and the violation of it are clear, it is no defense to show that a party has been to great expense." It added that where a coal hopper was operated in such a way as to materially interfere with a neighboring landowner, and the damages could not be adequately compensated by monetary damages, an injunction would be granted. It said "the court will not balance public benefits or public inconveniences against the individual right."

A 1923 appellate court case, discussing this and other pertinent cases, involved the obstruction of a stream by a power dam so as to cause lands upstream to be overflowed. The court upheld the issuing of a mandatory injunction ordering the removal of the dam. The court refused to apply the balance-of-convenience doctrine. It said that the consensus of authority in Illinois is that

> . . . where defendants constitute or establish a nuisance without right or authority of law and not under a contract or covenant, in cases of irreparable damage complainants are entitled to an injunction and . . . the question of the public interest cannot be taken into account. This rule or doctrine is certainly firmly established in this state, and is based upon the constitutional provisions that no person shall be deprived of life, liberty or property without due process of law.[38]

This decision was affirmed by the Illinois supreme court. That court noted that the power company argued "that to require the removal of the dam would cause such damages to it and the public it serves, and the evidence of the damages . . . by the dam's continuance is of such doubtful character, that it is the duty of a court of equity to deny the relief" requested. In denying this contention, the court said:

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[33] Nichols v. City of Rock Island, 3 Ill. 2d. 531, 538 (1954); see also Ogilby v. Donaldson's Floors, Inc., 13 Ill. 2d. 305, 308 (1958).

[34] In the appellate court case citing the supreme court decision, one of the parties contended that the case had adopted the doctrine of "balancing the conveniences" or "weighing of the equities," but the appellate court did not expressly decide this question.

[35] See Ill. Law and Practice, *Injunctions*, §§ 20, 21.

[36] Lloyd v. Catlin Coal Co., 210 Ill. 460 (1904); Cleveland v. Martin, 218 Ill. 73 (1905).

[37] Wente v. Commonwealth Fuel Co., 232 Ill. 526 (1908); followed in Rosehill Cemetery Co. v. Chicago, 352 Ill. 11, 30 (1933) and Huff v. Coates, 221 Ill. App. 513, 548 (1929).

See also Loomis v. Collins, 272 Ill. 221, 236 (1916).

[38] Deterding v. Central Ill. Public Service Co., 231 Ill. App. 542, 558-562 (1923). 22 Ill. L. Rev. 775, 777 (1928) expresses the view that like principles on such questions should be applied whether the action is based on a contract or a nuisance or other tort.

. . . we do not consider the evidence of damages . . . at all doubtful . . . The decree finds the obstruction was unlawful and caused damage (to the upper riparian landowners). That was an invasion of their legal rights, depriving them of their property without any compensation, and the mere fact that it might cause damage to (the power company) now to remove the obstruction does not appeal to us as any reason why the relief should not be granted.

The court noted that the engineers had testified that for $6,500 to $10,000 the dam could be altered so as to avoid damaging the upper owners and still provide sufficient water for the power plant.[39]

Nevertheless, it seems that the supreme court may be more apt to employ the balance-of-convenience doctrine in cases where a mandatory injunction is requested than otherwise. In a case in 1929, owners of land adjoining a lake requested a mandatory injunction to compel another adjoining landowner to remove the fill he had placed along the lakeshore. In affirming the denial of an injunction, the court noted that the complainants

. . . not only seek to enjoin the further prevention of the work but they seek a mandatory injunction to remove the work already done, which could only be accomplished at considerable expense . . . A mandatory injunction will be refused where the balance of conveniences is in favor of the defendant.[40]

(The court failed to note its prior approval of the issuance of a mandatory injunction in the case discussed above.) But the court also noted that "An injunction is properly denied where the right of the complainant is doubtful." The court also upheld the denial of an injunction on the ground of "estoppel."[41] There were questions regarding the interpretation of contractual arrangements. It further appears that the complainants may not have suffered substantial damage from the fill, although the extent of resulting damage, if any, is not clear.[42]

It seems that the courts also may be more likely to employ the balance-of-convenience doctrine in a case 1) where a temporary rather than a

[39] 313 Ill. 562, 566 (1924). See also Shontz v. Metzger, *supra,* 186 Ill. App. 436 (1911), upholding a mandatory injunction to remove a levee causing overflow even though it would cost more than the resulting benefit.

[40] Bondy v. Samuels, 333 Ill. 535, 550 (1929).

[41] See Estoppel, p. 215.

[42] The court cited two previous cases not involving water resources for the proposition that the balance-of-convenience doctrine may be applied where a mandatory injunction is requested. Hill v. Kimball, 269 Ill. 398 (1915); Dunn v. Youmans, 224 Ill. 34 (1906). The *Hill* case also had relied upon Lloyd v. Catlin Coal Co., discussed *supra,* 210 Ill. 460. The court in the *Hill* case, at p. 416, noted that this proposition would constitute an additional reason for denying an injunction after having held its denial was justified on other grounds. The *Dunn* case appears to have been decided largely on the ground that the damage was only nominal. The *Lloyd* case was later explained in Wente v. Commonwealth Fuel Co., discussed *supra,* as being a case where the rights or facts were unclear. See also Nitterauer v. Pulley, 401 Ill. 494, 505 (1948), discussed *infra.*

permanent injunction is requested, or 2) where the resulting injury is unintentional.[43]

Although the present state of the doctrine may be somewhat unsettled, it appears that the Illinois courts generally have not followed a rule of balancing the equities or conveniences in cases involving water pollution or otherwise involving water resources. Even in the above 1950 appellate court case involving pollution, and in other cases taking a more or less similar approach, it appears likely that if there were substantial injury of an irreparable nature, an injunction usually would have been issued without "balancing the conveniences." If the doctrine is employed in such a case, from the foregoing discussion it seems likely that it is more apt to be used in cases where: 1) the rights or facts are not clear, 2) the resulting injury is unintentional, 3) a mandatory or temporary injunction is requested, or 4) perhaps where there are contractual arrangements or the question of "estoppel" is involved.

In any event, if an injunction is sought for the performance of a useless act, it appears that it will not be granted, at least if it constitutes a hardship. In *Leitch v. Sanitary Dist. of Chicago*,[44] the plaintiff sought an injunction to have the defendant's sewer pipeline removed from across the Chicago River, alleging that it obstructed navigation and deprived him of his riparian rights of ingress and egress and transportation. The facts showed that the State of Illinois had erected a bridge across the river which would not allow any larger ships to use the river if the sewer were removed. The court held that since the removal of the sewer would afford no relief to the plaintiff and would impose a substantial hardship on the defendant, an injunction would not issue.

Abatement

In addition to the general injunctive powers of courts of equity, courts have, by statute, the power to abate a public nuisance as a crime if a criminal conviction has been obtained.[1] Since certain invasions of water-use rights may be considered public nuisances (e.g., pollution and obstruction of streams),[2] it seems that the remedy of abatement would be available

[43] In 39 ILL. BAR J. 195 (1950) the writer said that he had discovered no reported Illinois court decision invoking a doctrine of balancing the conveniences in cases where there was *substantial* injury. He also believed that if the Illinois courts were to do so, they would be more likely to invoke it in a case where the injury was unintentional rather than intentional [meaning by "intentional," where the defendant not only was aware of plaintiff's rights and deliberately disregarded them, but also where he had not adequately ascertained whether his acts would cause injury; citing Nitterauer v. Pulley, 401 Ill. 494 (1948) and Pradelt v. Lewis, 297 Ill. 374 (1921)]. In People v. Metropolitan Disposal Co., 345 Ill. App. 570, 581 (1952), this latter possibility is suggested, and also the possibility that the balance-of-convenience doctrine might be invoked to protect public interests for a temporary, as contrasted with a long-term or permanent, period. A garbage dump was involved here.

[44] 386 Ill. 433, 440 (1944).

[1] ILL. REV. STAT., c. 100½, §§ 26, 29.

[2] See Actions for Damages, p. 192, and Pollution, p. 37, and ILL. REV. STAT., c. 100½, § 26.

in appropriate situations. The statute states that "it shall be no defense to any proceeding under this section, that the nuisance is erected or continued by virtue or permission of any law of this state." However, under the statute a county court has only the power to order the abatement of a public nuisance by the sheriff or other proper officer at the expense of the defendant. It cannot order the defendant to abate the nuisance himself.

For example, in a relatively recent case[3] the facts were as follows: The state's attorney filed an information in the county court charging the defendant with polluting a stream with salt water from an oil well in violation of the criminal code. A jury was waived and judgment was entered against the defendant for $50. In addition, and as a part of the judgment, the court entered an order directing the defendant to correct the condition causing the pollution within 30 days. After the 30-day period expired, the state's attorney filed a citation and alleged failure to comply with the court order. The court found the defendant guilty of contempt, fined him $250 and ordered him to satisfy the Department of Mines and Minerals that he was not responsible for the pollution. On appeal the judgment was reversed. The appellate court held that the county court transcended its jurisdiction in its order to the defendant and, therefore, the judgment was void.[4] It held that the court could order the sheriff to abate the nuisance but could not order the defendant to do so.[5]

Joinder of Plaintiffs or Defendants

Different parties as plaintiffs may, in certain instances, join and maintain all their causes of action in one suit. However, such a joinder must withstand the plea of "multifariousness." The supreme court refused to sustain such a plea where a number of persons affected by the obstruction of a watercourse joined in one suit.[1] There the court said:

. . . the rule is well settled in this State that, if several property owners seek relief against the same injury upon the same ground, a bill, in which they join as complainants, will not be regarded as multifarious. A bill is generally understood to be multifarious when distinct and independent matters are improperly joined in one bill and thereby confounded, as, for example, where several perfectly distinct and unconnected matters against one defendant are united in one bill . . . In the case at bar, although some of the appellees owned one piece of land, and others of the appellees owned another piece of land, and the highway commissioners are interested in the highway running along the south side of the land, yet the obstruction of the channel, carrying off the water from the highway and from the lands of the appellees, is one and the same injury, suffered by them all. All the appellees have a common interest in the matter of removing the obstruction, which closes the outlet of the water from the lands in question, and from the highway. In other words, owners here occupy the same position as owners in severalty of different tracts of premises upon a mill stream, who are operating mills thereon, and it has been held that, in such case, the owners may maintain an action to restrain

[3] People v. Livingston, 331 Ill. App. 313 (1947).
[4] *Id.*, at 319.
[5] *Id.*, at 320.
[1] Baumgartner v. Bradt, 207 Ill. 345 (1904).

the improper diversion of water to the injury of their mills. In such case, although the titles are different, yet the injury, being a common one, creates such a community of interest as to entitle them to join in the action (High on *Injunction,* Section 880).[2]

Conversely, at least in the case of pollution, the courts have held there may be joint and several liability.[3] That is, if the injury has been wrongfully caused by more than one person the complaining party may sue one or all of them. No cases have been found on this point where other water-use rights are involved.

Estoppel

Estoppel may preclude the exercise of certain rights or privileges because of prior inconsistent action upon which the other party has relied.[4] But the Illinois courts have not often considered the question of estoppel in litigation involving water-use rights.

In a case where the defendant contended that the plaintiff gave his oral consent to the pollution of a stream running through his property, the court held that such consent was at most an oral license, revocable at will. The court added:[5]

> Nor did the fact that the village had expended money or incurred liabilities in the matter of constructing the sewers present any obstacle to such revocation . . . it must be held to have done so with full knowledge of the fact that the complainant had in no way obligated himself . . . by any binding act or instrument, and that he was at liberty at any time to recall the consent which he had orally given. And if under these circumstances, and without seeking to obtain from him any grant of the right of way over his land, or the execution by him of any other binding obligation in the premises, the village authorities saw fit to take steps towards the construction of the sewers, they are hardly in a position to invoke the doctrine of estoppel for the purpose of precluding the complainant from the assertion of his legal or equitable rights in the premises.

In a later case, however, the court upheld the denial of an injunction in part on the ground that "an injunction will be refused where the complainant has actively encouraged defendant to undertake the work and then has silently, without protest, permitted defendant to go ahead with the work." The defendant had spent about $6,500 in filling in the shoreline along a lake when he was sued by the owners of adjoining land who at the

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[2] *Id.*, pp. 348-350. It seems that the same rules would apply to actions for damages.

[3] Shelby Loan and Trust Co. v. White Star Refining Co., 271 Ill. App. 266 (1933); City of Kewanee v. Otley, 204 Ill. 402 (1903); Cook v. City of DuQuoin, 256 Ill. App. 452 (1930).

[4] The court has said that the other party must have done or omitted some act or changed his position in reliance upon the representations or conduct of the person claimed to be estopped. See De Proft v. Heydecker, 297 Ill. 541, 548 (1921).

[5] Village of Dwight v. Hayes, *supra,* 150 Ill. at p. 281-282. See also City of Kewanee v. Otley, *supra;* Eckardt v. City of Belleville, 294 Ill. App. 144, 150 (1938).

outset had consulted with and considered joining with the defendant in making the improvement. The court said: "In order to estop a party from enforcing a right, it is sufficient that a fraudulent effect would follow by allowing him to set up a claim inconsistent with his former declaration."[6]

Possibilities of riparian or other rights being lost due to adverse use for the prescriptive period are discussed earlier under Prescription, page 50.

Prior Determination by Administrative Agency

It has been argued that where certain fact situations are involved, the proper administrative agency must first take jurisdiction of any controversy that arises.

For example, the defendant in a relatively recent case[1] constructed a dam in the Sangamon River to generate electric power, without a permit from the state to do so. The dam caused overflow damage to plaintiff's land, and in a suit for damages the defendant contended that the case should be brought before the Commerce Commission before a court took jurisdiction. The court held that the Public Utilities Act was not intended to give the Commerce Commission jurisdiction of controversies over riparian rights merely because a power company was involved.

In 1959 the supreme court held that the 1951 Sanitary Water Board Act does not preclude individuals from taking action, without consulting the Board, against pollution that causes a nuisance. The court said that the Act's provisions indicated no intention to place exclusive jurisdiction in the Board, and the abatement of a public nuisance by a court may be requested by "an individual to whom or to whose property it causes or will cause a special or particular injury."[2] In a later appellate court case, however, the court held that to succeed in such a suit for permanent injunctive relief, actual and substantial injury must be shown. It suggested that the Sanitary Water Board was specially equipped and authorized to take action in cases of mere speculative and anticipated damage and that the plaintiff might request it to take action.[3]

Where an administrative agency has the power to issue permits to use water in a certain way, the question arises as to whether the issuance of such a permit will bar a suit against the permittee for injury resulting from acts committed under the authority of the permit.

In a 1934 case[4] the supreme court held that the fact that a permit was given under the Sanitary Water Board Act of 1929 (a forerunner of the 1951 act) to discharge the efflux of a sewage system into a stream did not bar a suit by riparian owners to enjoin the permittee from polluting the

[6] Bondy v. Samuels, *supra,* pp. 535, 549-551.

[1] Deterding v. Central Ill. Public Service Co., *supra.*

[2] Ruth v. Aurora Sanitary Dist., 17 Ill. 2d. 11 (1959).

[3] Dunlap Lake Prop. Owner's Ass'n v. City of Edwardsville, 22 Ill. App. 2d. 95 (1959). See Pollution, p. 37.

[4] Barrington Hills Country Club v. Barrington, *supra.*

stream or increasing its flow so as to injure their property rights.[5] The court stated that this is "especially" true where the permit itself provides that the authority given "does not in any way release the permittee from any liability for damage to person or property caused by or resulting from the installation, maintenance, or operation of the sewerage system."[6] The court said that the act did not extend the authority of the board to include control of private property rights of riparian owners and does not authorize any encroachment upon such rights. It further said that "while the permit might bar an action brought by the state attorney general, it constitutes no bar to this suit."[7]

Similarly, the court has held that a permit from the Department of Public Works and Buildings to build a dam across the outlet of a lake did not bar a suit by private individuals who claimed their property rights would be injured, where the permit expressly provided that it ". . . does not in any way release the permittee from any liability for damage to persons or property caused by or resulting from the work covered by this permit, and does not sanction any injury to private property or invasion of private rights or infringement of any Federal, State or local laws or regulations."[8]

The statutes that set up administrative remedies sometimes specify that the statute is to be construed liberally for the purpose of preserving, fully and unimpaired, the rights of the state and its citizens.[9] It seems that even in the absence of some specific provisions to this effect, the courts would hesitate to require an exhaustion of any administrative remedy unless such is a necessary implication or express provision of the statute.

It also may be noted that the Illinois statute declaring that water pollution and certain other acts constitute a public nuisance, and enabling the assessment of penalties and abatement of the nuisance, provides that "it shall be no defense to any proceeding under this section, that the nuisance is erected or continued by virtue or permission of any law of this state."[10]

Administrative Remedies

In Illinois there are a number of administrative remedies available to owners of water rights who feel these rights are being encroached upon. These remedies were created by statute to supplement the usual available remedies. They do not generally replace other remedies but may provide the means for a speedier and simpler settlement of conflicts in many cases. Apparently, action by administrative agencies often settles disputes at that level without litigation. Administrative remedies will be discussed in reference to the state department, board, or agency concerned.

[5] *Id.*, at 21.
[6] *Id.*, at 22.
[7] *Ibid.*
[8] Druce v. Blanchard, *supra.*
[9] ILL. REV. STAT., c. 19, § 76.
[10] *Id.* c. 100½, §§ 26, 29. See Abatement, p. 213.

Department of Public Works and Buildings. The Department of Public Works and Buildings has jurisdiction over a broad field of water problems, as noted in the earlier discussion of its powers and duties. The Department may make orders only after notice and hearing, and may seek action in court to recover a fine of up to $1,000 for failure to obey its orders.[1] It is to take action to recover compensation for or the use of waters wrongfully encroached upon,[2] and to seek appropriate action, by injunction or otherwise, to prevent the impairment of the carrying capacity of streams.[3] It has the power to issue subpoenas and administer oaths, and a refusal to comply with its demands is contempt.[4] The Attorney General may represent the Department and may use "all of the power of the State to prevent the wrongs and injuries" referred to in the act.[5] Final decisions of the Department are subject to judicial review under the Administrative Review Act.[6]

The Department must receive from any citizen complaints as to the invasion of or encroachment upon rights of the state or rights of any citizen of the state with reference to any of the public waters of the state, or any interference with the "right or claim of any citizen to use or enjoy" such waters. Upon being so requested, the Department must hold a public hearing and "enter an order defining the rights and interests of the parties, and prescribing their duties."[7] The extent, if any, to which action may thus be taken to safeguard riparian or other *private* rights of citizens is problematical.

The act specifically provides that an individual may request the Department to take appropriate action against the invasion of the following rights, or the failure to perform the following duties:

1. Interference with navigation.
2. Any unlawful interference with the use of docks, landings, or wharves.
3. Interference with free ingress and egress to navigable waters.[8]

Theoretically, to start the administrative wheels that remedy these wrongs, a citizen need only complain to the Department.[9] Then it is the duty of the Department to do what it can to see that justice is done. The Department also has the duty to keep watch and act on its own initiative if it discovers a violation of rights within its jurisdiction.[10]

Numerous complaints are processed by the Department each year.

[1] Ill. Rev. Stat., c. 19, § 74.
[2] *Id.* § 60.
[3] *Id.* § 70.
[4] *Id.* § 75.
[5] *Id.* § 72.
[6] *Id.* § 75a.
[7] *Id.* § 55.
[8] *Id.* §§ 56, 57.
[9] See *Id.* § 55 *et seq.* The act does not exclude the use of the usual legal remedies. See §§ 60, 76.
[10] See *Id.* §§ 54, 60, and 70.

Dumping or filling in streams is the most prevalent type of complaint received. The Department generally relies on discussion and persuasion to effect voluntary accommodations of disputes. A number of complaints are referred to other agencies. Or, other agencies are consulted if their interests appear to be involved, as noted earlier.[11]

The statutory requirement to obtain permits before doing certain acts is a type of negative remedy, in that, while such acts performed within the confines of the permit have administrative authorization, similar acts done without the permit are unlawful. It also would seem that one's failure to obtain a permit where required may make it difficult for him to take legal action against other persons. In one case, the failure to obtain a permit to discharge drainage waters into a navigable stream was held to invalidate a drainage district's contract with a certain company to do work for such purpose.[12]

On the other hand, permits issued apparently do not bar legal action for an invasion of a water right. In a case decided in 1930, the court held that a permit granted by the Department to build a dam in the outlet of a lake did not bar a suit to enjoin construction of the dam as interfering with drainage of surrounding farmland, where the permit expressly provided that it:

> . . . does not in any way release the permittee from any liability for damage to persons or property caused by or resulting from the work covered by this permit, and does not sanction any injury to private property or invasion of private rights or infringement of any Federal, State, or local laws or regulations.[13]

(The same disclaimer has been included in later permits issued by the Department.)[14]

The court indicated that the complainants' remedy was not limited to their right to appeal from the order granting the permit.[15]

Sanitary Water Board. The Sanitary Water Board is authorized to hold public hearings and make findings of fact and determinations with respect to violations of the statute or the orders issued by the Board. It may make orders requiring discontinuance of pollution, specifying the conditions and time within which the discontinuance is to be accomplished, and it may institute legal proceedings to compel compliance with the statute. It may make such investigations as it deems advisable and shall

[11] See Jurisdiction over Public Waters, p. 116.

[12] Duck Island Hunting and Fishing Club v. Gillen Co., 330 Ill. 121 (1928). See Jurisdiction over Public Waters, *supra*, for discussion of such permit requirements.

It also may be noted that it is a public nuisance to "obstruct or impede, without legal authority, the passage of any navigable river or waters." In a conviction, in addition to certain criminal penalties, the nuisance may be abated by the sheriff or other proper officer. Ill. Rev. Stat., c. 100½, §§ 26(4), 29.

[13] Druce v. Blanchard, 338 Ill. 211 (1930). The court said the permit was issued by the Department of Purchases and Construction, which was a predecessor of the present department.

[14] See Jurisdiction over Public Waters, p. 116.

[15] See Ill. Rev. Stat., c. 19, § 75a.

cause an investigation to be made *upon receipt of information concerning a violation.*[16]

It is the duty of the Illinois Attorney General to bring an action at the request of the Board to enjoin any violation of the Sanitary Water Board Act or of the orders of the Board.[17] Violators of the statute or of the orders of the Board are liable to a penalty of up to $500 and an additional fine of $100 a day so long as the violation continues. They also may be imprisoned for 30 days in the county jail.[18]

The Sanitary Water Board Act appears to give the Board broad powers of pollution control. Any person whose rights are violated by pollution may apply to the Board for relief, and it seems that a violation of rights caused by water pollution often should first be presented to them. Such action is more expedient than court litigation, and the problem is handled by experts rather than by a jury or judge who may have little knowledge of pollution and its control. However, the statute does not make such a course of action mandatory and the usual judicial remedies are still available.

For example, in a suit by the City of Murphysboro under the Administrative Review Act, an order of the Sanitary Water Board directing the city to cease discharging sewage into the Big Muddy River was attacked. The appellate court upheld the order of the Board largely on the basis of testimony by state sanitary engineers and state biologists concerning the detrimental effects of pollution created by the city's sewage discharge.[19]

The court had the following observations to make concerning the powers of the Board:

a. The statute does not restrict the power of the Board to abatement of a common law nuisance which can be enjoined on complaint of private parties but rather gives it powers aimed at prevention as well.

b. The board is authorized to order pollution stopped.

c. The statute is primarily intended to protect the public health but is not limited to that purpose. However, the Board may not collect damages for a complainant's benefit.[20]

In another appellate court case, the court refused to enjoin alleged pollution shown to have caused no more than *speculative* damage. It noted that such cases may be brought to the attention of the Board, which is empowered to seek the abatement not only of pollution that causes a nuisance but of conditions that are "likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety, and welfare."[21]

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[16] *Id.* § 145.6 (a), (b), (c). See Pollution, p. 37, for discussion of the practices and activities of the Board under this legislation.

[17] Ill. Rev. Stat., c. 19, § 145.14.

[18] *Id.* § 145.13.

[19] See City of Murphysboro v. Sanitary Water Board, 10 Ill. App. 2d. 111, 114 (1956).

[20] *Ibid.*

[21] Dunlap Lake Property Owners Ass'n v. Edwardsville, *supra.* Also, as noted earlier, if pollution constitutes a public nuisance or is willful, action may be taken under a statute. See Pollution, p. 37, and Abatement, p. 213.

State Mining Board. The State Mining Board is given express jurisdiction and authority over all persons and property necessary to effectively enforce the provisions of the oil and gas conservation act.[22] In addition, it is required to make such inquiries as it may think proper to determine whether waste, over which it has jurisdiction, exists or is imminent.[23] The Board is authorized to hold hearings and make written rules, regulations, and orders in accordance with its findings and determinations.[24]

If it appears that any person is violating or threatening to violate the provisions of the act, or any rules, regulations, or orders of the Board, the Mining Board may, through the Attorney General, sue in the county where the violation occurs or is about to occur to enjoin continuing or threatened violation. Such injunctions may be temporary or permanent, and either prohibitory or mandatory.[25] Any person who violates the act, or who, after notice, violates any valid rule, regulation, or order of the Mining Board is subject to a fine of up to $50 a day for each violation.[26]

The act also provides a remedy to the public in general, through the State Mining Board, against any unreasonable damage to underground waters or unnecessary damage or destruction of fish or aquatic life resulting from oil or gas operations. It seems that the wheels of this remedial process may be started by giving the mining board information of acts which constitute waste or threatened waste. The Board is then bound to make such further inquiry as it thinks proper and to take such action as may be reasonably necessary to enforce the act.

Permits shall be obtained from the Board to drill wells below the glacial drift. The Board refers applications to the State Geological Survey which issues the permit in the name of the Board. Permits are issued as a matter of course since the purpose in issuing them is simply to apprise applicants of the statutory requirements for furnishing the Survey with logs of wells drilled.[27]

Board of Economic Development. This Board has the power to "determine and provide ways and means for the equitable reconciliation and adjustment of the various conflicting claims and rights to water by users and uses."[28]

This Board was created in 1961, and functions of the Water Resources and Flood Control Board, which was abolished, were transferred to it with some modifications. The statement of the former Board's powers was identical in the above regard except that the word "arbitrate" was used in place of "determine."

Although the Attorney General expressed the opinion that the abolished

[22] ILL. REV. STAT., c. 104, § 65.
[23] *Id.* § 69.
[24] *Id.* § 70.
[25] *Id.* § 72.
[26] *Id.* § 87.
[27] See discussion under Percolating Groundwater, p. 130. Copies of application for permit, permit to drill, and log of well may be found in Appendix F.
[28] *Id.* c. 127, § 200-1 *et seq.*

board had no enforcement powers,[29] it apparently could serve as an amicable means of settlement when conflicts arose, since persons apparently could agree to submit water disputes to it for arbitration and its decision as arbitrator apparently could then be enforced on the basis of the contractual agreement. The Board did informally arbitrate some water rights and related disputes, but it acted only in an advisory capacity and not for the purpose of determining relative rights of the parties involved.[30]

Water authorities. Water authorities organized under the Water Authority Act[31] afford users within their territorial limits certain remedies against water-rights violations. These authorities are authorized to promote the common welfare by reasonably regulating the use of ground and perhaps other sources of water, and, during actual or threatened shortage, to establish limits upon or priorities as to use of the water.[32] They may require registration of all existing wells and other withdrawal facilities and may require permits for all new wells or withdrawal facilities or for alteration of existing ones.[33]

Any invasion of individual water-use rights which is also a violation of water authority regulations may be taken to the water authority for remedial action. It is empowered to fine a violator up to $50 for each violation and may invoke the injunctive powers of the court to restrain any violation.[34] Its decisions are subject to the provisions of the Administrative Review Act.[35]

The significance of this avenue of remedial action is minimized because of the broad exceptions from the authority's jurisdiction as stated in the statute. The provisions of the Act do not apply to water used for agricultural purposes, for irrigation, or for domestic purposes where not more than four families are supplied from the same well or other immediate source.[36] Moreover, public agencies that are diverting or obtaining water at the time an authority is established may continue to do so from the same source up to the rated capacity of their existing equipment.[37] The Act's significance is further reduced by the apparent fact that only one water authority was in existence within the state by 1962.

River conservancy districts. Such districts are empowered to prevent pollution of any waters from which a water supply may be obtained by any municipality or individual within the district, with the right to provide a police force within and without the district within a radius of

[29] Letter opinion of Att'y Gen. George F. Barrett, *Waters: Powers of State Resources and Flood Control Board* (March 2, 1948).

[30] Information supplied by T. B. Casey, Chief Waterway Engineer, Div. of Waterways, Dept. of Public Works and Buildings, who was technical secretary of the Board.

[31] ILL. REV. STAT., c. 111 2/3, §§ 223 to 250.

[32] *Id.* § 228 (5).

[33] *Id.* § 228 (2, 3).

[34] *Id.* § 228 (10).

[35] *Id.* § 230.

[36] *Id.* § 231.

[37] *Id.* § 229.

15 miles of the water-supply intake. Any other regulatory powers such districts may exercise are problematical, as noted earlier.

Soil and water conservation districts. Water users within a soil and water conservation district may remedy encroachments on certain water rights through the medium of the district's development plans and its authority to adopt land-use regulations, as discussed earlier. This may be accomplished by individual suggestions and assistance in developing plans and drafting regulations, and by bringing to the attention of the directors situations involving water rights which are likewise within the ambit of the district authority and jurisdiction. Such a course of action might remedy the invasion of rights such as a) the right to have the water of a stream flow unobstructed, and b) the right to receive water in a stream without material alteration in quality.[38]

In addition, cooperation in the work of these districts may tend to conserve and store water, thus improving supply sources. This, in turn, may result in fewer conflicts in water use because of the increased supply.

Drainage districts. The operation of a drainage district is often concerned with wrongful obstruction of watercourses, diversion and detention of waters, and similar invasions of water rights. They have certain powers to correct such wrongful acts,[39] so it seems that a user whose rights are invaded by this type of action may initiate a correction of the wrong by informing the district commissioners. It should also be noted that the district itself may at times invade individual water-use rights in developing a drainage system. However, in taking such rights, the district may need to pay their value.[40]

Other Remedies

Action by state's attorney or Illinois Attorney General. The relevant local state's attorney may prosecute or otherwise take action in regard to actions that may constitute a crime, and the state's Attorney General may initiate legal proceedings to protect the interests of the state.[1] However, in 1914 the Attorney General expressed the opinion that he was not authorized to take action to have a dam removed from the Sangamon River near Springfield that allegedly was flooding upper farmlands, because the only injury alleged was to private property and the general public apparently would not be affected.[2]

[38] See discussion of Soil and Water Conservation Districts, p. 179.

[39] ILL. REV. STAT., c. 42, §§ 4-14, 4-15.

[40] *Id.* § 4-17. See discussions of drainage districts under Drainage, p. 139, and Artificial Watercourses Distinguished, p. 56.

[1] This is in addition to action taken on behalf of particular administrative agencies such as described above in regard to the Department of Public Works and Buildings.

[2] 1914 OPS. ATT'Y GEN. 1332. On the other hand, the Attorney General has advised that before issuing a permit to build a dam on a meandered, hence public lake, the Department of Public Works and Buildings should determine that its construction would not cause private property, not theretofore overflowed, to be overflowed. See his letter opinion addressed to E. A. Rosenstone dated April 7, 1954, discussed earlier under (State) Jurisdiction over Public Waters, p. 116.

Self-help. Although not a formal remedy, self-help often may be sanctioned by the courts. For example, in one case the court held that a servient owner could erect such embankments and barriers as would effectively prevent wrongful discharge of water onto his land, even though this would throw the water back upon the upper owner.[3]

But the action taken to help one's self often may be such as will injure an innocent third party. In a case involving pollution, the court held that a proprietor could not straighten and deepen a stream on his land, thus accelerating the flow of water and causing upstream pollution to flow through his property upon that of a lower owner, even though he was in this way able to rid himself of the pollution.[4] Self-help is, at best, a risky remedy since a court may not sanction the action taken.

Arbitration. Illinois has an arbitration statute expressly authorizing persons to agree in writing to the submission of existing controversies to arbitration.[5] The court has held that the statute does not authorize any agreement to submit future controversies to arbitration under it. In this regard, the statute does not change the common law or enlarge it, but provides that persons with capacity to contract may, by an agreement in writing, submit to arbitrators in the manner provided in the agreement any controversy existing between them. The court specified that the statute plainly requires an existing controversy, and is permissive to the parties when the controversy exists.[6] Thus, it seems that the courts would ordinarily uphold an agreement by parties to arbitrate existing disputes involving water rights. However, in a suit to recover damages for violation of the award of the arbitrators, the complaining party must show substantial compliance with the arbitrator's determination on his part before he can recover.[7]

Declaratory Judgments Act. The Declaratory Judgments Act[8] does not supplant any of the existing remedies but is an alternative or additional remedy[9] where there is an actual controversy.[10] Apparently no suits involving water rights have been initiated under this act, but it seems that if the requirements of the statute are satisfied, the remedy would be available the same as in any other fact situation. If an actual controversy is involved, the Act may be invoked.

Certain instances (for example, where a contemplated financial outlay may or may not be made, depending on which way a controversy would

[3] Lacey v. Lacey, 199 Ill. App. 208 (1916) and Wills v. Babb, 222 Ill. 95 (1906).

[4] Springfield v. North Fork Outlet Drain. Dist., *supra.*

[5] Ill. Rev. Stat., c. 10, §§ 101 to 123.

[6] Cocalis v. Nazlides, 308 Ill. 152 (1923). A mere agreement to submit future differences to arbitration does not oust courts of jurisdiction to decide the matter, since such an agreement is revocable and the bringing of suit is revocation of the contract, with respect to arbitration. McKenna Process Co. of Ill. v. Blatchford Corp., 304 Ill. App. 101 (1940).

[7] Throop v. Griffin, 77 Ill. App. 505 (1898). Also see the earlier discussion of the arbitration provision included under Board of Economic Development, p. 221.

[8] Ill. Rev. Stat., c. 110, § 57.1.

[9] Coven Distributing Co. v. Chicago, 346 Ill. App. 448 (1952).

[10] Exch. Nat. Bank of Chicago v. Cook County, 6 Ill. 2d. 419 (1955).

be settled) might lend themselves favorably to an action under the Act, by effecting a determination of the issue before taking such action. It should be recognized, however, that a determination that a certain use of a watercourse is reasonable may be subject to later change if the situation changes.

Quo warranto. A remedy called *quo warranto* is ordinarily employed to question the right of a person to hold or conduct the functions of a governmental or quasi-governmental office.[11] Although *quo warranto* would seem to have limited application, it has been used in Illinois to determine ownership of riparian rights. In *Ensminger v. People ex rel. Trover*,[12] a proceeding in the nature of *quo warranto* was brought against the defendant, Ensminger, who, as wharfmaster, operated wharves and charged dock fees at Cairo along the Ohio River. The supreme court reversed the trial court on the facts, but sustained the form of the proceeding, holding that the defendants had the right to operate the wharves and charge dock fees.

Eminent domain. Eminent domain is, of course, the power of the government to take private property for public use upon payment of just compensation and by due process of law. The discussion at this point is not concerned with remedial value to the public (which is a field of law in itself), but with the remedies of a private owner who suffers an invasion of his water-use rights by a government agency or public corporation which has not complied with the eminent domain statute and other relevant laws concerning its eminent domain powers.

In one case the court said, in granting an injunction against the pollution of a stream by a city:

> This court has repeatedly held that the taking of property by a municipality or other body vested with the power of eminent domain will not be tolerated except in the manner prescribed by statute and the taking must be accompanied by payment at the time the property or right is taken.[13]

The above language was supported by a number of citations, including the case of *Elser v. Village of Gross Point*.[14] In that case a court of equity said it would not act to enjoin a public improvement if property is not actually taken for the improvement, but if the taking of property were involved, it would enjoin such taking until damages are ascertained as provided by law.[15] It further held that the particular invasion involved (overflow caused by diversion of water) constituted a taking of property.[16]

[11] But it is not a proper remedy to test the legality of the official acts of public officers. People v. Bd. of Review of Peoria County, 19 Ill. 2d. 424 (1960). For such purposes, mandamus is a suitable remedy.

[12] 47 Ill. 384 (1868).

[13] Barrington Hills Country Club v. Barrington, *supra*, at p. 20.

[14] 223 Ill. 230 (1906).

[15] *Id.*, at 243.

[16] Other water-use rights invasions which have been held to be the taking of property are 1) pollution (*Barrington* case, *supra*); 2) riparian proprietorship (Leitch v. Sanitary Dist. of Chicago, *supra*); 3) riparian rights (Evans v. Merriweather, *supra*.)

In another case the court held the overflow of lands caused by a power dam to constitute such a taking for which eminent domain would be necessary.[17]

It follows that an injunction is a proper remedy where a body vested with the power of eminent domain invades a water right which constitutes a taking of property without complying with the eminent domain statute.[18]

A proceeding somewhat similar to eminent domain is provided to enable a landowner to extend a covered drain along the natural course of drainage across another's land without his consent.[19]

The Mills and Millers Act of 1872 purported to authorize the use of eminent domain for milldam and related purposes,[20] but it was repealed in 1941.[21] In 1903 the supreme court had held that the 1872 Act was unconstitutional and void in so far as it purported to authorize condemnation of private property for the purposes of public mills and machinery other than public grist mills, as it would permit the taking of property for private use.[22]

The 1872 Act had provided in part that an owner of land adjoining a watercourse and a part of its bed, who desired to build, repair, or raise a dam to supply water from the watercourse for a public gristmill, sawmill, or other public mill or machinery, or to improve navigation for the use of such mill or machinery, through special condemnation proceedings provided in the act could take or injure private property without the owner's consent, providing the health of the neighborhood would not be injuriously affected.[23]

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[17] Central Ill. Public Service Co. v. Vollentine, 319 Ill. 66 (1925). Refuting the contention that this would constitute a public taking for *private* purposes, the court said that the state may validly authorize companies acting under its control (here the Commerce Commission) to use eminent domain to supply the public with gas, electricity, heat, and water.

[18] Also see earlier discussion of *permanent* damages that may be awarded if a permanent structure has been completed without employing eminent domain under Measure of Damages, p. 197.

[19] See ILL. REV. STAT., c. 42, § 2-2, discussed under Drainage, p. 139.

[20] ILL. LAWS, 1872, p. 563.

[21] ILL. LAWS, 1941, p. 1284, § 1. For two existing provisions relative to milldams see Local Governmental Units, p. 153, regarding ILL. REV. STAT., c. 24, § 23-19, and Agreements to Share Water or Water-Power Furnished by a Dam, p. 227, regarding ILL. REV. STAT., c. 92, § 12. See notes under ILL. REV. STAT. ANN., c. 92 for various other court decisions construing this and earlier milldam acts. Milldam acts were in existence in the Northwest Territory before Illinois became a state. See 2 TERR. LAWS, 1815, p. 456, cited in Head v. Amoskeag Mfg. Co., 113 U.S. 9, 17 (1885).

[22] Gaylord v. Sanitary Dist., 204 Ill. 576 (1903). Court decisions regarding milldam acts of other states were discussed and distinguished.

[23] It also was provided that "no such dam shall be erected, repaired or raised in height, to the injury of any mill lawfully existing either above or below it on the same stream . . . unless the right to maintain a mill or dam on such site has been lost or abandoned." This provision seems to have had an element of the principle of prior appropriation in it, in that it seems to have provided that ordinarily after such a mill was lawfully built no additional mill could be subsequently built to its injury on the same stream through such condemnation proceedings.

Other matters. Any invasion of a water right which constitutes a public nuisance as defined by statute is a violation of the criminal code and the violator may be prosecuted. Such acts may include water pollution or the obstruction of a navigable stream.[24] Penalties may include a fine of up to $100, and for a subsequent offense a like amount plus confinement up to 3 months in the county jail. If there is a conviction, the nuisance may be abated.[25]

Although these proceedings are not the kind of remedy that makes the injured party whole, they may be used as a means of coercing the wrongdoer to cease the unlawful acts. They may be used especially where the injury is suffered by a governmental agency or a number of different persons.[26]

Two additional defenses have some importance in water-rights litigation: prescriptive rights and dedication.

If an invasion of a water right has continued for the period of the statute of limitations, prescriptive rights may arise, and, if so, the statute may be set up as a defense to any proceedings based upon that invasion.[27] But if the invasion was against a water right of the state, it cannot ripen into a prescriptive right since the statute of limitations does not run against the state.[28]

In suits by riparian proprietors for invasions of riparian rights (or possibly suits for the invasion of any water right), the defense of dedication to public use also may sometimes be employed. However, the necessary elements of dedication must be clearly shown for such defense to be effective.[29]

Agreements to share water or water power furnished by a dam. *Illinois Revised Statutes,* chapter 92, section 12, provides that "where different persons have the right to use, in separate or distinct quantities or proportions, the water or water-power furnished by a dam across any river" they may determine some fair and reasonable manner of measuring and delivering to each his just share. Such regulation may be recorded in the recorder's office of the county where the dam is situated.

An agreement for regulating their respective rights to use such water shall be binding on all parties to the agreement when properly executed and acknowledged and recorded in the recorder's office of the county in which the dam is located, "Provided, however, that in all cases the regulations made for measuring and delivering such water or water-power shall fairly and impartially apportion the same to each person entitled to the use of the same according to his just share thereof . . ."

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[24] Ill. Rev. Stat., c. 100½, § 26.

[25] *Id.* § 29.

[26] See People v. Livingston, 331 Ill. App. 313 (1947); People v. Craft, (Richland County Ct., 1956) in Appendix C.

[27] Indian Refining Co. v. Ambraw River Drainage Dist., *supra;* Beidler v. Sanitary Dist., *supra;* Wills v. Babb, *supra.* See earlier discussion of prescription.

[28] See 1948 Ops. Att'y Gen. 614, p. 226; Trustees of Schools v. Lilly, 373 Ill. 431 (1940).

[29] Leonard v. Pearce, *supra.* See Dedication to Public Use, p. 59.

Other types of agreements among riparian landowners or other persons apparently are not subject to these specific provisions. But agreements regarding such rights apparently would be governed by general requirements or rules regarding the execution and recording of documents pertaining to real property.

There are no general requirements that water rights, as such, must be recorded in the county recorder's office.

TRIAL COURT ACTIVITY

To determine the extent of trial court litigation with regard to water-use conflicts in recent years, the authors sent two sets of questionnaires to the county and circuit clerks in each county of the state, one set in September, 1956, and another in August, 1959. About 75 percent of the questionnaires were returned. If a returned questionnaire indicated there had been litigation in regard to water use, a personal interview followed, to determine the nature of the case and the result of the litigation.

Relatively few instances of pertinent cases were reported. However, the clerks did not report on cases that had been appealed to or decided by the Illinois supreme court or the appellate courts in recent years.

In the first set of questionnaires, only nine decided cases were found that were pertinent to water-use rights. Four pending cases were of a nature indicating that questions of water-use rights might arise during the course of action.[1]

Of the nine decided cases, six involved pollution.[2] Two involved obstruction of streams by dams causing water to back up onto upper riparian land. The remaining case involved overflow damage caused by the erection of levees. None of the cases directly involved the right to use water for consumptive purposes.

The second set of questionnaires disclosed that one case of significance regarding consumptive water-use law had arisen since the first questionnaires were circulated. This case involved a suit by a farm owner and his tenant against the City of Taylorville to obtain a mandatory injunction requiring that the city supply water from its water system.[3] The plaintiffs alleged that, by the terms of an agreement included in a grant of a right of way to defendant to lay a water pipeline across the farm to a water-well drilled on neighboring property, they were entitled to be supplied by defendant's water system.

The grant upon which plaintiffs relied was executed on September 14, 1950, and recorded on November 15, 1951. It stated that if the city's use of water "shall destroy or impair substantially the sources or source of

[1] Of these, only one actually came to trial and is summarized in Appendix B.

[2] See Appendix C, Cases 1, 2, 3, 4, 5, and 8. Four of these were actions by the attorney general, three on behalf of the sanitary water board.

[3] Ellis v. City of Taylorville, Chancery No. 58-1008. (Christian County Cir. Ct., June 16, 1959).

water supply used by grantors on a farm or farms," then the city would supply water from its water system to grantors for ordinary household uses and animal consumption, at no expense. Plaintiffs' wells went dry, and two new deeper wells were drilled to obtain water. In the complaint it was alleged that these wells were also about to go dry, and $5,000 damages were requested to cover the cost of drilling the new wells and related costs.

The court refused to grant the injunction or to award any damages, apparently reasoning that the evidence did not prove that impairment of plaintiffs' water supply was caused by the city's wells. Several other farm wells in the general area went dry during the drought years of 1952 to 1954.[4] The court apparently also felt that the need to dig deeper wells (their 30-foot depth was increased to 80 feet) was not substantial impairment of the *source of supply* since the source (a groundwater basin) was still there, the upper level of it simply being further under the ground.[5]

The plaintiff apparently did not question whether, aside from any such grant, the city was entitled to use all the water it desired from the wells it operated.[6] The only question raised was whether the use had substantially impaired plaintiff's source of supply in violation of the terms of the right-of-way grant.

The plaintiff apparently would have been in a better position if the terms of the grant had been made more specific, such as by adding to the words "shall destroy or impair substantially the source or sources of water supply used by grantors on a farm or farms" the words "or shall require the water well or wells located thereon to be deepened or replaced in order to continue to supply water for use on the grantors' farm or farms." On the other hand, such an addition apparently would have created greater risks of liability for the city. As a compromise wording, such an agreement might have included a provision such as "deepened by more than _____ feet or replaced by a new well more than _____ feet greater in depth," with agreed-upon figures inserted in the blanks.

[4] For a discussion of actual and theoretical fluctuations in groundwater levels in the Taylorville area due to natural causes and pumpage by the city and industries in the area, see W. Walker and W. Walton, Ground-Water Development in Three Areas of Central Illinois, Ill. State Water Survey Investigation Report 41 (1961).

[5] Reasons for the court's decision, according to interpretation of John Coale and Daniel Reese, attorneys for plaintiffs. Also see the earlier discussion of an appellate court case, Behrens v. Scharringhausen, under Percolating Ground Water, for a similar question where, however, there had been no contractual agreement between the parties.

[6] See Percolating Groundwater, p. 130, regarding this question.

FEDERAL MATTERS

In addition to state laws, there are various federal regulatory provisions (particularly regarding navigable waters) and federal programs that may have a bearing on water rights.[1]

A primary source of federal jurisdiction regarding water resources is Article I, Section 8, of the United States Constitution which gives Congress the power "to regulate Commerce with foreign Nations, and among the several States. . . ." The United States Supreme Court has interpreted this to include various powers in regard to navigable waters of the United States. It has been said to include:

. . . the power to protect the navigable capacity by preventing diversions of the water itself,[2] or of nonnavigable tributaries that affect navigability,[3] or by preventing obstructions by bridges[4] or dams[5] or by constructing flood control structures on the navigable waters or on their nonnavigable tributaries or even on the watersheds of the rivers and tributaries.[6]

It also has been said to include the powers to obstruct and prevent navigation,[7] or to license obstructions,[8] and the power to generate electric energy from the dammed water.[9] Various federal powers over water resources also are derived from other constitutional provisions, including the so-called property,[10] supremacy,[11] general welfare,[12] war,[13] and treaty[14] clauses of the Constitution. Article IV of the Northwest Ordinance of 1787 may provide an additional basis for federal jurisdiction in Illinois. But any particular significance it may have as contrasted with other recognized bases of federal authority is problematical.[15]

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[1] This and related matters have been investigated in research conducted by the University of Wisconsin for the U.S. Department of Agriculture under Professor of Law J. H. Beuscher's supervision. See Trelease, *Federal Limitations on State Water Law,* 10 BUFFALO L. REV. 399, Spring, 1961

[2] Trelease, *supra,* pp. 400-410, citing Sanitary District of Chicago v. United States, 266 U.S. 405 (1925).

[3] *Id.,* citing United States v. Rio Grande Irrigation Co., 174 U.S. 690 (1899).

[4] *Id.,* citing Union Bridge Co. v. United States, 204 U.S. 364 (1907).

[5] *Id.,* citing Economy Light and Power Co. v. United States, 256 U.S. 113 (1921).

[6] *Id.,* citing Oklahoma v. Guy F. Atkinson Co., 313 U.S. 508 (1941). This case involved a multiple-purpose dam intended for flood control, navigation improvement, and hydroelectric power purposes.

[7] *Id.,* citing Oklahoma v. Guy F. Atkinson Co., *supra;* So. Carolina v. Georgia, 93 U.S. 4 (1876).

[8] *Id.,* citing United States v. Appalachian Power Co., 311 U.S. 377 (1940).

[9] *Id.,* citing Ashwander v. TVA, 297 U.S. 288 (1936).

[10] *Id.,* citing Ashwander v. TVA, *supra; Id.,* at 411, citing art. IV, § 3 of the Constitution.

[11] *Id.,* at 411, citing art. VI of the Constitution.

[12] *Id.,* citing United States v. Gerlach Livestock Co., 339 U.S. 725 (1950); *Id.,* at 415, citing art. 1, § 8 of the Constitution.

[13] *Id.* at 413-414, citing Ashwander v. TVA, *supra,* and art I, § 8, *supra.*

[14] *Id.,* at 414-415, citing Sanitary District of Chicago v. United States, *supra;* art. II, § 2 of the Constitution. See also art. VI, *supra.*

[15] See the discussion of the Ordinance under Interstate and International Matters, p. 257.

Navigable waters of the United States may be defined somewhat differently by the federal courts or legislation for different purposes, and under the varying circumstances of particular cases.[16] There are no statutory definitions that generally define such waters for determining the jurisdiction of the Corps of Engineers, discussed later, to prevent or regulate obstructions to navigable waters or impairment of their navigable capacity under the commerce clause of the United States Constitution. But the courts have defined such waters in general terms as waters capable of being used as avenues of substantial commerce between states or with foreign countries.[17] Legislation regarding the jurisdiction of the Federal Power Commission, also discussed later, defines navigable waters to include those parts of streams and other bodies of water which in their "natural or improved condition" are "used or suitable for use" for transporting persons or property in interstate or foreign commerce, notwithstanding that they may be interrupted by "falls, shallows, or rapids compelling land carriage."[18] Congress has specifically declared certain waters within Illinois and elsewhere to be non-navigable or abandoned as navigable water of the United States.[19]

The proper roles of federal and state governments in regard to water rights has been the subject of controversy in recent years, and various bills on the subject have been introduced in Congress.[20] Under the abovementioned commerce clause of the United States Constitution as interpreted by the Supreme Court, the federal government holds extensive constitutional powers regarding navigable waters in the United States, which are superior to, and may be exercised without submitting to, state water-rights laws. In practice, however, Congress and the federal agencies have seldom employed such powers to their full extent. Congress has provided for various methods of recognizing state water-rights laws and has pro-

[16] See Laurent, *Judicial Criteria of Navigability in Federal Cases,* 1953 Wis. L. Rev. 8; Waite, *Pleasure Boating in a Federal Union,* 10 Buffalo L. Rev. 427, Spring, 1961.

With respect to definitions employed in determining bed ownership questions, see Federal Law Regarding Ownership of Beds, p. 82.

[17] Leovy v. United States, 177 U. W. 621, 632-633 (1900); United States v. Rio Grande Dam and Irrigation Co., 174 U.S. 690 (1899).

There have been numerous federal cases applying such general criteria in determining whether particular waters are navigable waters of the United States.

[18] See 16 U.S.C.A. § 797 (e). In United States v. Appalachian Power Co., 311 U.S. 377, 407-408 (1940) concerning the jurisdiction of the Federal Power Commission, the court said that in determining navigability for the purpose of the regulation of commerce "it is proper to consider the feasibility of interstate use after reasonable improvements which might be made," noting that "there must be a balance between cost and need at a time when the improvement would be useful." It added that "When once found to be navigable, a waterway remains so."

[19] See *e.g.,* 33 U.S.C.A., §§ 26, 26a, 27, 27a, 27b, and 44.

[20] The legislative and executive branches of the Illinois government have voiced concern over this matter and have urged clarifying federal legislation to safeguard individual and state water rights. See House Joint Resolution No. 46; Ill. Laws, 1959, p. 2491; and U.S. Senate Select Comm. on Nat'l Water Resources, Comm. Print No. 6, *Views and Comments of the States* (1961), pp. 61-62.

vided for consultation and participation by the states in most federal projects, which usually are initiated at the request of interested groups, local governments, or agencies in the affected states.[21]

Following is a discussion of some relevant functions of federal agencies, and federal legislation that concerns water resources in Illinois.[22] It does not purport to cover all of the numerous federal laws and programs that may have some bearing on such resources.

Corps of Engineers, United States Army

The Corps of Engineers, United States Army, has a number of responsibilities concerning the water resources of Illinois. Federal legislation has given the Corps certain regulatory authority over such things as the construction of dams and the alteration of the course or capacity of navigable waters. The Rivers and Harbors Act of 1899 provides, among other things, that:

> It shall not be lawful to construct . . . any bridge, dam, dike or causeway over or in any . . . navigable river, or other navigable water of the United States until the consent of Congress . . . shall have been obtained and until the plans for the same shall have been submitted to and approved by the Chief of Engineers and by the Secretary [of the Army].

Further approval is required to modify or deviate from the plans as approved. Such structures:

> may be built under authority of the legislature of a State across rivers and other waterways the navigable portions of which lie wholly within the limits of a single State, provided the location and plans thereof are submitted to and approved by the Chief of Engineers and by the Secretary [of the Army] before construction is commenced. . . .[1]

Another section of the 1899 Act also provides that:

> The creation of any obstruction not affirmatively authorized by Congress to the navigable capacity of any of the waters of the United States is prohibited; . . . and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any . . . canal, lake, . . . or of the channel of any navigable water of the United States . . .

except on prior recommendation by the Chief of Engineers and approval by the Secretary of the Army.[2] In *Cummings v. Chicago,* the United

[21] See Trelease, *op. cit. supra,* note 1, at p. 417 *et seq.*

[22] Also, a number of scattered references to federal legislation, programs, etc. are included earlier, notably under Navigable Waters, and State Jurisdiction over Natural Watercourses.

[1] 30 STAT. 1151; 33 U.S.C. § 401.

[2] 30 STAT. 1151; 33 U.S.C., § 403. The Secretary of the Army may prescribe various regulations for the "use, administration, and navigation of the navigable waters of the United States . . . covering all matters not specifically delegated by law to some other executive department." 32 STAT. 374; 40 STAT. 266; 33 U.S.C.A., § 1. The statute includes penalty provisions. Related functions of the Coast Guard are discussed on p. 243.

Prior legislation in 1890, which provided in part that "the creation of any obstruc-

States Supreme Court, in construing this provision, held that the right to erect a structure in navigable water of the United States wholly within the limits of a state (the Calumet River was said to be entirely within Illinois) depends upon the concurrent or joint assent of the state and federal governments.[3]

These and related statutory provisions have been construed by the United States Supreme Court in some other controversies involving Illinois. In one case the Court construed these statutory provisions as providing a basis for authorizing the federal government to enjoin the Sanitary District of Chicago under enabling state legislation from diverting water at more than a certain rate from Lake Michigan through a canal.[4] In a later case, decided by a five to four decision, these statutes were held to authorize the federal government to enjoin the discharge of industrial solid wastes through sewers into the Calumet River without first obtaining a conditional permit from the Chief of Engineers, and to require their partial removal to restore navigable capacity.[5] The Court indicated that, while the legislation did not expressly cover all the matters at issue, it would "charitably" construe it by drawing certain inferences from it and said, "Otherwise we impute to Congress a futility inconsistent with the great design of this legislation." It said that this legislation was intended to fill the void left by an early Supreme Court decision to the effect that "there is no common law of the United States" which prohibits "obstructions" in our navigable waters,[6] and that this void "need not be filled by

tion not affirmatively authorized by law to the navigable capacity of any waters in respect to which the United States has jurisdiction, is hereby prohibited" was said, in United States v. Rio Grande Irrigation Co., *supra*, pp. 707-709, to apply to any such obstruction tending to destroy such navigable capacity, wherever done, and that the federal government could enjoin the damming of a non-navigable tributary of a navigable watercourse which substantially interferes with its navigable capacity where navigation is a recognized fact.

[3] 188 U.S., 410, 426-431 (1903). See also North Shore Boom Co. v. Nicomen Boom Co., 212 U.S. 406, 412 (1909).

[4] This was primarily to dilute sewage, the water and the sewage being discharged through canals and rivers leading into the Mississippi River. Sanitary District of Chicago v. United States, 266 U.S. 405 (1925). See also Wisconsin v. Illinois, 278 U.S. 367 (1929); 281 U.S. 179 and 696 (1930); 352 U.S. 945 (1956); 352 U.S. 983 (1957); 360 U.S. 712 (1959); 362 U.S. 957 (1960). Interstate and international aspects of these cases, involving the so-called Chicago diversion controversy which is still being litigated, are discussed under Interstate and International Matters, p. 257. In 352 U.S. 945 (1956), the Court permitted temporary increases in the diversions of water to alleviate an emergency in navigation caused by low water in the Mississippi River. The Court extended this temporary authorization in 352 U.S. 983 (1957).

[5] United States v. Republic Steel Corp., 362 U.S. 482 (1960); *rehearing denied*, 363 U.S. 858 (1960); *on remand*, 286 F. 2d. 875 (1961). The Court held, among other things, that such discharge was not within the statutory exemption of the discharge of refuse "flowing from streets and sewers and passing therefrom in a liquid state." See 33 U.S.C.A., § 407. More recent legislation, discussed under Department of Health, Education and Welfare, p. 244, permits federal control of pollution under certain circumstances.

[6] Quoting Williamette Iron Bridge Co. v. Hatch, 125 U.S. 1, 8 (1888). The Court added "unless it be the maritime law, administered by the courts of admiralty and maritime jurisdiction."

detailed codes which provide for every contingency." The minority, speaking through Justice Harlan, interpreted this legislation as not susceptible to such broad inferences and said, "However appealing the attempt to make this old piece of legislation fit modern-day conditions may be, . . . the filling of deficiencies in the statute . . . is a matter for Congress, not for this Court."

This legislation has been held not to prevent concurrent and compatible state legislation regarding structures in navigable waters of the United States.[7] But the *Chicago Sanitary District* case, among others, indicates that federal considerations are paramount and may override conflicting state legislation in this regard.[8]

A pamphlet is available from the Corps of Engineers for the use of persons "applying for authority to perform work or place structures in or across navigable waters of the United States." The pamphlet in use in 1962 states that:

> Federal laws prohibit such work unless recommended by the Chief of Engineers and authorized by the Secretary of the Army before the work is begun. The authorization is ordinarily granted in the form of a permit. . . .
>
> The pamphlet describes briefly the organization of the Corps of Engineers, its jurisdiction, and your responsibility under the Federal laws, and the method of compliance with those laws.[9]

The standard permit form employed for such use in 1962 provides, among other things, 1) that the authorized work shall not unreasonably interfere with navigation, and the district engineer in charge of the locality

[7] See Cummings v. Chicago, 188 U.S. 410 (1903).

[8] Some other federal cases arising from Illinois concerning definition of navigable waters, acquisition of land for construction of dams and reservoirs, and other matters include: Economy Light and Power Co. v. United States, 256 U.S. 113 (1920), discussed in 35 HARVARD L. REV. 154 (1921); United States v. Meyer, 113 F. 2d. 387 (1940), *cert. denied* 311 U.S. 706. Some Illinois court decisions construing various federal laws include Duck Island Hunting and Fishing Club v. Gillen Dock, D. and C. Co., 330 Ill. 121 (1928); Cobb v. Lincoln Park, 202 Ill. 427 (1903); MacNeil v. Chicago Park Dist., 401 Ill. 556 (1948); Chicago v. Law, 144 Ill. 569 (1893); Bowes v. Chicago, 3 Ill. 2d. 175 (1954), *cert. denied,* 348 U.S. 857; Leitch v. Sanitary Dist. of Chicago, 369 Ill. 459 (1938); Senko v. La Crosse Dredging Corp., 16 Ill. App. 2d. 154 (1957).

An Illinois appellate court has held that one who was removing sand from the bed of the Mississippi River without authority from the Secretary of War was violating one of these statutes, which includes a penalty provision, and as the doer of an illegal act he could not recover against another who was taking sand out of a tributary stream to his damage. Kessinger v. Standard Oil Co., 245 Ill. App. 376 (1925). Also the ownership of the beds of navigable streams in Illinois as a general rule is in the riparian landowners, as noted earlier, and permission would be needed from the owner of the bed to make such removal. See Archer v. Greenville Sand and Gravel Co., 233 U.S. 60, 69 (1913), cited in the *Kessinger* case, *supra.*

[9] PERMITS FOR WORK IN NAVIGABLE WATERS, Corps of Engrs., U.S. Army, July, 1949. The procedures have been amended slightly, based on letter from Mark S. Gurnee, Chief, Operations Div., Civil Works, Office of Chief of Engrs., Washington, D.C., dated March 22, 1962.

may temporarily suspend the authorized work at any time in the interest of navigation, and 2) that if future operations by the United States require an alteration in the position of the authorized structure or work or if it causes unreasonable obstruction to navigation, the permittee may be required to remove or alter the structure or work. The pamphlet also includes a notation that:

It is to be understood that this instrument does not give any property rights either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to private property or invasion of private rights, or any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining *State assent* to the work authorized. IT MERELY EXPRESSES THE ASSENT OF THE FEDERAL GOVERNMENT SO FAR AS CONCERNS THE PUBLIC RIGHTS OF NAVIGATION. (See *Cummings v. Chicago,* 188 U. S., 410.)[10]

District and division engineers have been or may be delegated authority by the Chief of Engineers to issue permits or letters of authorization in certain instances, such as where the proposed work is of a routine or minor nature. Among other relevant regulations, Title 33, section 209.130 (a) (6) of the *Code of Federal Regulations* states that:

For minor structures and work in unimproved waterways or in improved waterways where such structures and work are well removed from the fairways used by navigation, authorization may be by a letter of permission.[11] No drawings will be required to be submitted, nor will any public notice be issued in such cases. This procedure may be utilized when, in the opinion of the District Engineer concerned, there could be no opposition from the standpoint of navigation and authorization would unquestionably be given. If State law or local ordinance requires approval of the structures or work, a copy of such approval will be submitted with the application. . . .

The Corps' operations within Illinois are handled by a number of its division and district offices. In 1962 there were three division offices, whose jurisdictional boundaries are shown on the map in Fig. 3. These divisions were subdivided into districts, with five district offices having jurisdiction in Illinois.

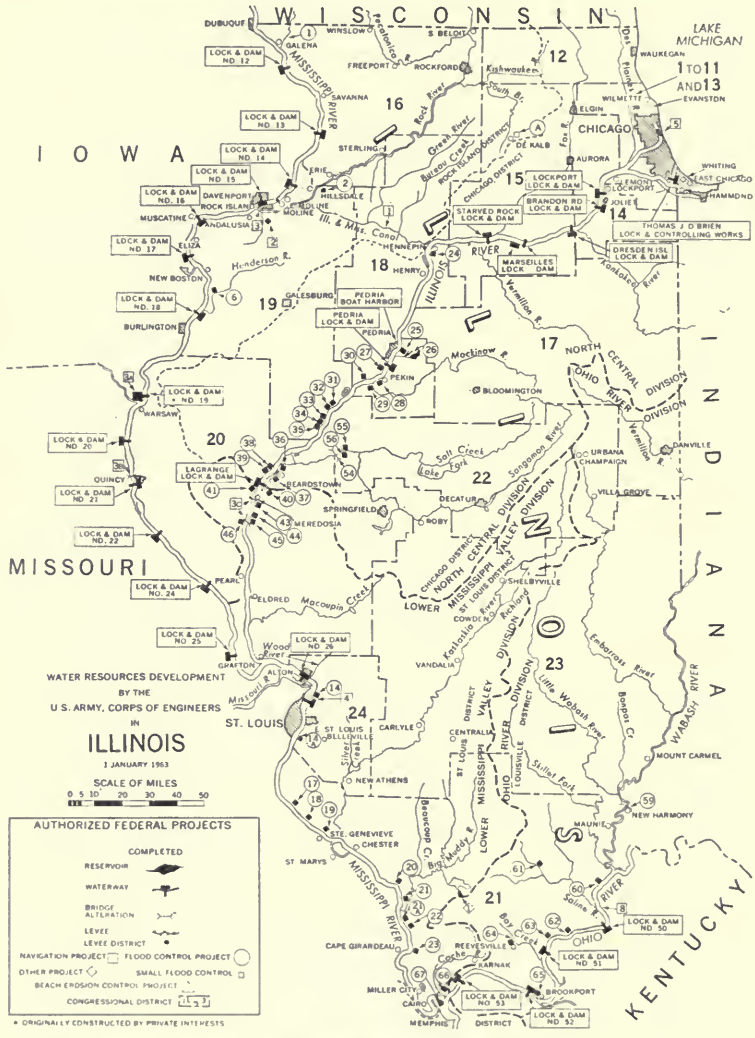
Waterways within or bordering Illinois that in 1962 were considered by the Corps of Engineers to be navigable waterways within its jurisdiction to protect their navigability are included in Appendix L. This list of navigable waterways does not include a number of streams, lakes, or portions of streams that are listed among the "public streams and lakes" in Appendix A, which was compiled and employed for it jurisdictional purposes by the Illinois Division of Waterways, Department of Public Works

[10] In construing certain relevant legislation in the *Cummings* case, the court held, as noted earlier, that the right to erect a structure in navigable water of the United States wholly within the limits of a state depends upon the concurrent or joint assent of the state and federal governments.

The permit form for obtaining this right is included in Appendix M.

[11] Rather than by using a standard permit form, according to letter from Mark S. Gurnee, *supra.*

FIGURE 3. — DIVISION AND DISTRICT OFFICES OF U.S. ARMY CORPS OF ENGINEERS IN ILLINOIS AND FEDERAL PROJECTS COMPLETED



The oddresses of the district offices (in 1964) are:

Rock Islond District: District Engineer, Clock Tower Building, Rock Islond, Illinois.

Chicago District: District Engineer, 536 S. Clork, Chicogo, Illinois.

Louisville District: District Engineer, 830 W. Broodwoy, Louisville, Kentucky.

St. Louis District: District Engineer, 420 Locust Street, St. Louis, Missouri.

Memphis District: District Engineer, Federol Office Building, Memphis, Tennessee.

(Map odapted from *Water Resources Development by the U.S. Army Corps of Engineers in Illinois*, U.S. Army Eng. Div., N. Centrol, Chicago, Illinois, January 1, 1963. The legend for numbered projects is omitted.)

and Buildings. On the other hand, Appendix L does include some waterways that are not listed by the Illinois Division of Waterways.[12]

The list of navigable waters includes those considered to be navigable for the purposes indicated and is subject to revision as additional facts are disclosed by field investigations, or because of future court decisions or federal legislation. Determinations of navigability made by the Corps represent its views but are not conclusive.[13]

The following replies were received from the Corps of Engineers when questioned with respect to the placing of structures in non-navigable watercourses tributary to navigable watercourses, and the withdrawing of water for irrigation or other purposes from navigable or non-navigable watercourses if no dam or other permanent structures are built in aid thereof:

1. From the North Central Engineer Division:[14]

"The question of withdrawing water for irrigation generally requires only that the intake structure or the intake itself be authorized unless the quantity of water removed could possibly have a detrimental effect on navigation by reducing pool levels.

Erection of dams on those streams where jurisdiction is not exercised would not require approval by permit. However, such structures should be planned so as not to increase flood heights or in any way interfere with flood control."

2. From the Ohio River Engineer Division:[15]

"The experience of this office has not been such as to permit a categorical answer to your query concerning requirements for application and approval before withdrawing water from navigable waters for irrigation or other purposes if no dam or other permanent structures are built in aid therefor. Because we have not experienced withdrawals in volumes sufficient to adversely affect navigation, we do not require permits for withdrawal of water, except relative to permanent intakes to be built in the stream. It appears probable that permits might be required if it were indicated that withdrawals from navigable waterways would be so large that they would adversely affect the navigability of the waterway. No federal permit is required for work on non-navigable tributaries to navigable parent streams."

[12] Note, for example, that the list in Appendix A includes only that portion of the Big Muddy River that lies below Ziegler. (As indicated in Appendix A, it apparently also excludes bodies of water on the border of Illinois. But a number of these would no doubt be considered to be public streams or lakes by the Division of Waterways.)

In 1957 Ill. Ops. Att'y Gen., pp. 224-226, regarding an inlet on private property connected with Lake Michigan, the Attorney General expressed the opinion that, although it might be under federal control for purposes of 33 U.S.C. § 403, such an inlet did not constitute public waters within the Illinois statutory definition.

[13] See 33 Code Fed. Reg. § 209.260. This section of the federal regulations specifies criteria for determination of navigability by the Department of the Army based on reported court decisions.

[14] Letter dated Feb. 2, 1962, from Col. E. C. Paules, Deputy Div. Engr., Chicago.

[15] Letter dated Jan. 29, 1962, from Col. R. W. Lockridge, Deputy Div. Engr., Cincinnati.

3. From the Lower Mississippi Valley Engineer Division:[16]

"Structures used for pumping water from navigable waterways require a permit or letter of permission from the District Engineer. This permit is only for protecting the public rights of navigation. Structures for irrigation in non-navigable waterways are subject to the control of the states under their respective laws and regulations."

In addition to its regulatory functions the Corps conducts a number of other activities under a variety of legislative authorizations and appropriations regarding water resources in Illinois. Its activities with respect to water resources development are discussed in a publication[17] issued in 1961, which describes a number of projects completed, under way, or being studied by the Corps on that date. These include navigation, flood control, and related projects. A total of 67 local flood protection projects were reported as completed, 12 for urban and 55 for agricultural areas. The construction and other costs of most such projects have been borne primarily by the federal government, with local interests contributing varying amounts. A number of local drainage and levee districts have been involved in such projects.[18]

The *1958 Annual Report* of the Illinois Division of Waterways, Department of Public Works and Buildings,[19] indicates that before a proposed report on a navigation or flood control project is transmitted to Congress by the Corps, it is referred to the Governor for review as required by federal law, and the state's comments on the project accompany the report to Congress. The Illinois Board of Economic Development secures and compiles the views of this Division and other state agencies, municipal corporations, industry, utilities, and other private interests and individuals. The 1961 statute that created the Board provides that it may represent the state in matters concerning water-resource projects of the federal government.[20]

By 1962 three multiple-purpose projects that would include water-supply features had been authorized for construction by the Corps. Two of these are the Carlyle and Shelbyville reservoirs on the Kaskaskia River.[21] The other is Rend Lake on the Big Muddy River. The first two projects, which are part of a comprehensive plan for the Kaskaskia Valley, are intended to provide flood control, water supply, fish and

[16] Letter dated Jan. 29, 1962, from L. B. Feagin, Chief, Construction-Operations Div., Vicksburg, Miss.

[17] Water Resources Development by the U.S. Army Corps of Engineers in Illinois, No. Central Div., U.S. Army Corps of Engrs., Jan. 1, 1961.

[18] Also see Activity Regarding River Conservancy Districts, p. 165, for some references to the Corps' role in making studies, construction of projects, and the like.

[19] At p. 36.

[20] Ill. Rev. Stat., c. 127, § 200-1 *et seq.*

[21] The Carlyle reservoir was reported to be about 30% complete as of June 28, 1962, and reconstruction planning of the Shelbyville reservoir to be about 85% complete as of that date, the first construction contract for it being scheduled for initiation in May or June of 1963. Based on letter from Col. A. J. D'Arezzo, Dist. Engr., Corps of Engineers, St. Louis, dated June 28, 1962.

wildlife conservation, and recreational development in the area.[22] They would also provide flood protection for the Mississippi River and lowflow augmentation for navigation of that river, and provide municipal, industrial, and rural water supply.[23] The Shelbyville reservoir also would provide water for pollution abatement.[24]

The estimated $39,250,000 total cost of the Carlyle project includes an estimated $3,050,000 of contributed funds for water supply.[25] Illinois legislation has authorized state expenditures to cover a portion of the construction and maintenance costs for the purpose of obtaining additional water storage for domestic, rural, and commercial water users, and has

[22] It may be noted that general federal legislation empowers the Chief of Engineers, under the supervision of the Secretary of the Army, to construct, maintain, and operate public park and recreational facilities in reservoir areas under the control of the Department of the Army or to permit such activities or to sell or lease lands for cottage sites subject to certain restrictions, certain preferences to be given to federal, state, or local governmental agencies, and public uses for boating, swimming, fishing, and other recreational uses, and consistent with state laws for the protection of fish and game. See 16 U.S.C.A., § 460d *et seq.* In 1963, the State Department of Conservation was making preliminary plans for waterfront recreational developments on five federal reservoirs — the Carlyle, Shelbyville, Rend Lake, Oakley (on the Sangamon River), and Lincoln (on the Embarrass River) reservoirs. It stated that "The completion of these reservoirs will provide the state with much excellent water recreation. . . . In addition, the shore line developments should provide Illinois with some of its finest state parks for general recreation. If funds are provided in the near future for the fulfillment of the proposed plans, the result will be the greatest single impetus to the Illinois Park and Recreation Program in its entire history." See the Department's 1963 ANNUAL REPORT, p. 7. Other legislation enables the Corps: 1) to provide additional storage space for domestic water supply or other conservation storage if local agencies cover the cost thereof and agree to utilize it in a manner consistent with federal uses and purposes (see 33 U.S.C.A., § 701h, *et seq.*); 2) to impound water in its reservoir projects for municipal or industrial purposes and credit the value thereof to the economic value of the entire project, if state or local interests agree to pay the cost, and certain other requirements are met (see 43 U.S.C.A., § 390b); and 3) to make contracts with states, municipalities, private concerns, or individuals for the use of available surplus water in its reservoirs at reasonable prices. (See 33 U.S.C.A., § 708). See 43 U.S.C.A. §§ 390c to 390f concerning rights of state and local interests regarding water storage provided for their use at their expense in reservoirs built by the Corps.

[23] 72 STAT. 310 (1958) authorized construction of the Kaskaskia River project substantially as recommended by the Chief of Engineers in House Doc. 232, 85th Congress. This document proposed the construction of the multiple-purpose dams and reservoirs at Carlyle and Shelbyville, certain levees, and a protection project for New Athens.

[24] See THE ROAD TO PROGRESS, THE KASKASKIA VALLEY PROJECT, SHELBYVILLE AND CARLYLE DAMS AND RESERVOIRS, published by the Kaskaskia Valley Ass'n.

It may be noted that legislation enacted in 1961 enables the inclusion of storage in reservoirs constructed by the Corps or other federal agency for regulation of streamflow to control water quality, but not as a substitute for adequate treatment or other control of waste at the source. The value of such storage may be credited toward the total economic value of the entire project and costs therefor allocated so as to insure that all project purposes share equitably in the benefits, although if the benefits are widespread or national in scope such costs shall be nonreimbursable. See 33 U.S.C.A., § 466a.

[25] Based on letter from Col. D'Arezzo, *supra*, note 21.

authorized the Department of Public Works and Buildings to enter into agreements with the federal government.[26] Pursuant to this authorization, the Department and the Corps of Engineers have negotiated a contract for such purposes.[27]

Recently the Area Development Administration, discussed later, made a study grant to the Corps of Engineers to survey the proposed multiple-purpose Rend Lake dam and reservoir on the Big Muddy River near Benton, which is described earlier under Activity Regarding River Conservancy Districts.[28] The Corps of Engineers has completed the requested study, and the project as proposed by the Corps has been authorized by Congress to be constructed by the Corps for flood control, water supply, pollution abatement, conservation of fish and wildlife, and recreation. It is estimated to cost $35,500,000 of which $29,469,000 will be federal costs.

Another project which includes water conservation features is the Crab Orchard Project in southern Illinois. The Corps has constructed the project's three dams (to form Crab Orchard, Little Grassy, and Devil's Kitchen lakes). The dams are located in the Crab Orchard National Wildlife Refuge and are operated by the U. S. Fish and Wildlife Service. The Devil's Kitchen dam reportedly was initiated as a land-utilization project under the Resettlement Administration in 1936 and later placed under the jurisdiction of the Soil Conservation Service, U. S. Department of Agriculture. Work was halted during World War II by the War Production Board and the project was later transferred to the Fish and Wildlife Service, U. S. Department of Interior. The 1955 appropriation for that Department authorized completion of the project by the Corps of Engineers.[29]

Navigation projects include various Lake Michigan harbor improvements, improvements along the Mississippi, Ohio, and other rivers, and construction and operation of the Illinois Waterway that connects Lake Michigan at Chicago with the Mississippi River at Grafton. The State of Illinois cooperates with, or has contributing projects regarding a number of such projects.[30] The old Illinois and Mississippi Canal (connecting the Mississippi River near Rock Island to the Illinois River near Bureau) has been abandoned as a commercial waterway and arrangements have been made for the federal government to repair and modify it for public recreational use, and then to convey its interest in the Canal to the State of Illinois, which contemplates developing the facility as a public recreational area.[31] The old Illinois and Michigan Canal, extending from the

[26] Ill. Laws, 1957, p. 166; 1959, p. 810.

[27] See the 1957 Annual Report of the Department's Division of Waterways, pp. 46-48.

[28] Other contributions to this project by the Area Development Administration are discussed later.

[29] Based on the report cited, *supra,* note 17, pp. 41-47.

[30] See Department of Public Works and Buildings, p. 144.

[31] See discussion of the Mississippi and Sinnissippi Lake Commission and related functions of state agencies under Other Departments, Boards, and Commissions, p. 149.

Chicago River to the Illinois River near La Salle-Peru, also has been abandoned as a commercial waterway and its control and maintenance have been assigned to the Illinois Department of Public Works and Buildings. The ultimate disposition of the canal lands and facilities apparently had not yet been decided in 1962, but 438 leases of canal property were then in effect. There were a number of problems in determining who owned specific parts of the canal lands.[32]

It may be noted that a 1944 act of Congress states as a declaration of policy:

> In connection with the exercise of jurisdiction over the rivers of the Nation through the construction of works of improvement, for navigation or flood control, as herein authorized, it is hereby declared to be the policy of the Congress to recognize the interests and rights of the States in determining the development of the watersheds within their borders and likewise their interests and rights in water utilization and control, as herein authorized to preserve and protect to the fullest possible extent established and potential uses, for all purposes, of the waters of the Nation's rivers; to facilitate the consideration of projects on a basis of comprehensive and coordinated development; and to limit the authorization and construction of navigation works to those in which a substantial benefit to navigation will be realized therefrom and which can be operated consistently with appropriate and economic use of the waters of such rivers by other users.[33]

In addition to the large flood-control dams, dams and locks to facilitate navigation, levees, and related structures built by the Corps, legislation enables the Corps, with certain restrictions, to construct small flood-control projects not specifically authorized by Congress when, in the opinion of the Chief of Engineers, such work is advisable. No more than $1,000,000 may be allotted for this purpose at any single locality from appropriations in any one fiscal year.[34] The above-mentioned report on water resources development by the Corps in Illinois, dated January 1, 1961, indicates that one such project has been authorized and completed in Illinois, at DeKalb.[35]

Projects of various kinds authorized by Congress in 1962 included projects involving the Illinois Waterway, the Illinois River and its tributaries, the Mississippi, Kaskaskia, Pecatonica, Wabash, and Rock Rivers, Richland Creek, the Chicago Harbor, and the proposed Rend Lake project on the Big Muddy River. Projects involving two drainage and levee districts and a levee and sanitary district also were authorized.[36]

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[32] See *op. cit. supra* note 17, and the 1957 to 1962 ANNUAL REPORTS, Ill. Div. of Waterways, Dept. of Public Works and Buildings. See Developed or Added Waters, p. 52, for an Illinois court decision involving the old Illinois and Michigan Canal. See also note 33, p. 146.

[33] 58 STAT. 887-888; 33 U.S.C.A., § 701-1.

[34] 33 U.S.C.A. § 701s. A presidential executive order regarding coordination of Corps projects with watershed projects aided by the Department of Agriculture is discussed under Department of Agriculture, p. 245.

[35] Federal costs were estimated at $123,200 and non-federal costs at $51,000.

[36] See 76 STAT. 1173.

Mississippi River Commission

The Mississippi River Commission was created by Congress in 1879. Its seven commissioners, appointed by the President with the advice and consent of the Senate, shall include three selected from the Corps of Engineers (one of whom shall be designated president of the Commission), one from the Coast and Geodetic Survey, and three from civil life, two of whom shall be civil engineers. The Commission has been empowered to conduct surveys and formulate plans (including the estimates of their costs) regarding the protection of the river banks, the alteration and deepening of the river channel, improvement of navigation, flood prevention, and the promotion of commerce, trade, and the postal service. The reports of the Commission's plans, proceedings, and actions shall be submitted to the Secretary of the Army for transmittal to Congress.[1]

In 1916, Congress provided that the funds for improvement of the Mississippi River below the mouth of the Ohio River, which may be allotted to levees, may be expended in accordance with the Commission's plans and recommendations as approved by the Chief of Engineers, under the direction of the Secretary of the Army, for levees upon any part of the river between Head of Passes, near its mouth, and Rock Island, Illinois. The legislation also transferred to the Commission control and jurisdiction of the Ohio River from its mouth to the mouth of the Cache River, except for improvements involving the construction of locks and dams.[2]

Federal Power Commission

Federal legislation dating from 1920 provides, among other things, that the Federal Power Commission is authorized to issue licenses to states, individuals, and others

> . . . for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs — or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States . . .

or on any public lands or reservations of the United States, or for the purpose of utilizing surplus water or power from any government dam, with certain exceptions. But no such license may be issued which affects the navigable capacity of any navigable waters of the United States unless approved by the Chief of Army Engineers and the Secretary of the Army.[3]

[1] See 33 U.S.C.A. § 641 *et seq.*

[2] 39 STAT. 402; 33 U.S.C.A. §§ 649, 650.

[3] 41 STAT. 1065, 1353; 46 STAT. 798; 49 STAT. 839; 16 U.S.C.A. § 797(e). See also 18 CODE FED. REG. § 1.1 *et seq.* regarding applicable regulations.

The Commission does not issue licenses for projects intended solely for the development and improvement of navigation; based on letter from J. Gutride, sec. of the Commission, dated May 28, 1962.

The only existing license by the Commission for a project located within Illinois as of May, 1962, was a 50-year license issued in 1924 to the North Counties Hydro-Electric Company for a constructed hydroelectric development on the Fox River near Dayton.[4]

A number of the federal flood control acts (discussed under Corps of Engineers, page 232) provides for the installation of penstocks or other power facilities in dams authorized by such acts when approved by the Secretary of War upon the recommendation of the Chief of Engineers and the Federal Power Commission.[5]

Coast Guard

The U. S. Coast Guard has various functions in the enforcement of federal laws relating to navigable waters of the United States, the establishment and operation of navigation aids, and the saving of lives or property.[1] There are a number of relevant federal laws concerning a variety of subjects, including such matters as requirements regarding lights on vessels and actions that may constitute federal crimes, and federal courts have admiralty jurisdiction regarding various kinds of disputes over boats using navigable waters affording the possibility of interstate commerce.[2]

A list of navigable waters within or bordering upon Illinois, upon which the Coast Guard was pursuing active boarding and law-enforcement functions in April, 1962, is included in Appendix L. This does not include all of the navigable waters that may be subject to the Coast Guard's jurisdiction.[3]

A number of federal regulations regarding the equipping and operation of motorboats are included in the Motorboat Act of 1940. The Coast Guard may adopt necessary regulations under the act.[4a] The Federal Boating Act of 1958 with certain exceptions requires the numbering of privately-owned vessels propelled by machinery of more than 10 horsepower that use the navigable waters of the United States. The number shall be secured from the state in which the vessel is principally used, which may charge a fee therefor. If the state does not have a federally

[4] Based on letter from J. Gutride, *supra.*

[5] See 52 STAT. 1216; 54 STAT. 508; 55 STAT. 639; 58 STAT. 892; 59 STAT. 12; 60 STAT. 644; 33 U.S.C.A. 701j.

[1] See 14 U.S.C.A. § 81, *et seq.*

[2] These and related matters have been investigated in the above-mentioned research conducted by the U. of Wis. for the U. S. Dept. of Agr. See Waite, *Pleasure Boating in a Federal Union,* 10 BUFFALO L. REV. 427, Spring, 1961.

[3] 33 CODE FED. REG. c. 1, A, 2 includes a general description of navigable waters of the United States subject to Coast Guard jurisdiction and describes procedures for and availability of special determinations by the Coast Guard regarding such navigability and jurisdiction. It also names waters in the several states that have been specially determined by the Coast Guard to be either navigable or non-navigable waters of the United States.

[4a] See 46 U.S.C.A. § 526 *et seq.*

approved numbering system, which meets certain standards, the number shall be obtained from the secretary of the department in which the Coast Guard is operating. The Coast Guard is authorized to inspect vessels on navigable waters of the United States for compliance with this act and regulations thereunder, the Motorboat Act of 1940, and "the applicable rules of the road."[5] But applicable state laws in states having a federally approved numbering system shall be enforced by appropriate law-enforcement officers of the state or its subdivisions.

The 1959 Illinois Boat Registration and Safety Act, discussed earlier, includes an approved numbering system for motorboats.[6] It lists a number of provisions requiring approval of the U. S. Coast Guard, such as the use of Coast Guard-approved fire extinguishers, lights, or other equipment or devices for boats of a certain size or horsepower. The Act also stipulates that wherever its provisions conflict with laws and regulations of the federal government the latter shall take precedence.

The federal act broadly declares that the policy of Congress is to encourage uniformity of boating laws, rules, and regulations among the states to the fullest practicable extent, subject to reasonable exceptions arising from local conditions, and to encourage reciprocity and comity among the states in order to foster the development, use, and enjoyment of the waters.[7]

Department of Health, Education, and Welfare

The Department of Health, Education, and Welfare may take certain regulatory action regarding the pollution of interstate waters that endanger the health or welfare of persons in another state, as is described later under Interstate and International Matters. As amended in 1961 the applicable legislation now provides that the Department also may act on requests from the governor of a state with reference to the pollution of interstate or navigable waters within that state which endangers the health or welfare of persons only in the requesting state.[1] Action may be taken in regard to pollution of interstate or navigable waters resulting from discharge into a tributary of such waters. This legislation is administered by the Public Health Service under the supervision of the Secretary of Health, Education, and Welfare.

If the effect of the pollution on legitimate water uses is deemed of sufficient significance to warrant exercising federal jurisdiction, a conference is to be called with the water pollution control agency and any rele-

[5] See 46 U.S.C.A. § 527, *et seq.* Regarding rules of navigation applicable to various waters in or bordering Illinois, see 33 U.S.C.A. § 241 *et seq.;* 301 *et seq.;* and 33 CODE FED. REG., parts 90, 95.

[6] Based on letter dated April 16, 1962, from Lt. Comm. L. J. Hock, district legal officer, 9th Coast Guard Dist., Cleveland, Ohio.

[7] 72 STAT. 1754, as amended by 75 STAT. 408 (1961); 46 U.S.C.A. § 527, *et seq.*

[1] See 33 U.S.C.A. § 466g.

vant interstate agency of the state. After a conference, if the Secretary believes that the health or welfare of any persons is endangered, and effective progress toward pollution abatement is not being made, he may recommend that the appropriate state agency take necessary remedial action. If insufficient action is taken after 6 months, a public hearing may be held by an appointed hearing board, and recommendations made for appropriate remedial action by the polluter. If insufficient action is taken by the polluter after 6 or more months as specified in the notice of the hearing, with the consent of the governor, the state attorney general may be requested to bring a suit on behalf of the United States to secure abatement of the pollution.

Other programs of the Department relating to pollution and water supply include: 1) federal grants to states, municipalities, or interstate agencies, for construction of treatment works approved by it and appropriate state water pollution control agencies, not exceeding 30 percent or $600,000 of the estimated reasonable costs of any project, 2) federal grants to states and interstate agencies to aid them in maintaining measures for controlling pollution, including costs of administering state or interstate pollution control plans, 3) federal grants to or contracts with public or private agencies, institutions, or individuals for research, training, or demonstrations, and 4) technical services to states, and special studies and assembly of basic data regarding water supply and quality, and water supply and pollution abatement facilities, including studies regarding the Great Lakes, and the development of comprehensive pollution control programs in cooperation with state and interstate and other federal agencies and local interests.[2]

Department of Agriculture

The Department of Agriculture has a variety of programs that may affect water use in Illinois.

The Secretary of Agriculture, among other things, is authorized to develop a program of land conservation and land utilization to aid in:

> . . . controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, mitigating floods, preventing impairment of dams and reservoirs, conserving surface and subsurface moisture, protecting the watersheds of navigable streams, and protecting the public lands, health, safety, and welfare, but not to build industrial parks or establish private industrial or commercial enterprises.

This mandate is being effected through a variety of authorizations and programs, a number of which are briefly described below.

The Secretary of Agriculture is authorized to cooperate with federal, state, and other public agencies in developing plans for a program of land conservation and utilization, and to assist in carrying out such plans by loans to state and local public agencies designated by the state legislature

[2] See *Id.* § 466 *et seq.*

or the governor.[1] Such loans are administered by the Department's Farmers' Home Administration.

The Watershed Protection and Flood Prevention Act. The Watershed Protection and Flood Prevention Act of 1954, as later amended, provides for technical, financial, and other assistance by the U.S. Department of Agriculture to such local agencies and organizations as are authorized under state law to assume responsibility for initiating, carrying out, maintaining, and operating works of improvement to help conserve, develop, utilize, and dispose of water for a variety of purposes, including prevention of erosion, floodwater damages, and sediment damages, and supplementing of any needed downstream flood prevention measures.[2] Any state or political subdivision thereof, soil or water conservation district, flood prevention or control district, or combinations thereof, or other local public agency having authority under state law to carry out, maintain, and operate the works of improvement is eligible to participate in the program, as is any nonprofit irrigation or reservoir company, water users' association, or similar organization having such authority that may be approved by the Secretary of Agriculture.

No project under this legislation shall embrace a watershed or subwatershed area in excess of 250,000 acres, nor shall any single structure have a floodwater detention capacity of more than 5,000 acre-feet nor a total capacity of more than 25,000 acre-feet.[3] Hence, the projects authorized under this act are commonly called small watershed projects in contrast to larger watershed or river basin development projects.

Upon request, the Department of Agriculture is authorized, among other things, to assist local organizations under specified conditions in: a) conducting surveys and investigations, and preparing plans of work, b) making allocations of costs to the various purposes, and determining whether benefits exceed costs, c) entering into agreements to furnish financial and credit assistance, within specified limitations, and d) obtaining the collaboration of other federal agencies. The Soil Conservation Service has been assigned the responsibility of providing such assistance, except that the Farmers' Home Administration has the responsibility of making loans and advancements. For certain projects the approval of certain congressional committees, the recommendation of the Department of the Interior, the recommendation of the Army, or a combination of these shall

[1] If such plans have been submitted to, and not disapproved within 45 days by the state agency having supervisory responsibility over such plans, or by the governor if there is no such state agency. For a single loan in excess of $250,000, the approval of certain congressional committees is required. Loans of up to 30 years' duration may be made. Repayment of principal and interest on such loans shall begin within 5 years. See 7 U.S.C.A. §§ 1010, 1011.

[2] 16 U.S.C.A. § 1001 *et seq.;* 68 STAT. 666; 70 STAT. 1088; 72 STAT. 563, 567, 1605; 74 STAT. 131, 254; 75 STAT. 408; 76 STAT. 608. See also Exec. Order No. 10584, Dec. 20, 1954 (19 FED. REG. 8725) *as amended by* Exec. Order No. 10913, Jan. 19, 1961 (26 FED. REG. 510).

[3] But two or more projects may be planned together or coordinated.

be obtained; legislation and executive orders provide for coordinating the programs of the different federal agencies.[4]

The Fish and Wildlife Service of the Department of the Interior receives notice of all projects and may make recommendations concerning the conservation and development of wildlife resources, and participate in the preparation of work plans in this regard.

To be eligible for federal assistance, local organizations shall a) acquire, without cost to the federal government, the needed land, easements, and rights of way,[5] b) acquire, or provide assurance that landowners or water users have acquired, such water rights, pursuant to state law, as may be needed in the installation and operation of the works of improvement, c) construct or let contracts for improvements on nonfederal lands, d) make satisfactory arrangements for defraying the cost of operating and maintaining the works of improvement, e) obtain agreements to carry out recommended soil conservation measures by means of approved farm plans from owners of not less than 50 percent of the land situated in the drainage area above each retention reservoir to be installed with federal assistance, and f) assume a proportionate share[6] of the installation cost of any works of improvement applicable to the agricultural phases of the conservation, development, utilization, and disposal of water, or for fish

[4] A presidential executive order (No. 10584, Dec. 20, 1954; 19 Fed. Reg. 8725, *as amended by* No. 10913, Jan. 19, 1961; 26 Fed. Reg. 510) provides, among other things, that when the major objective of an application is the reduction of flood damage in urban areas (as defined in the most recent census) the Secretary of Agriculture shall request the views of the Secretary of the Army concerning the feasibility of achieving equivalent urban flood protection under other specified legislation. He shall authorize planning assistance under the Act only after carefully considering whether works of improvement under the Act would be a more appropriate method of achieving that objective.

Conversely, the Secretary of the Army, before undertaking any survey under specified legislation relating to works of improvement wholly within a watershed or subwatershed area of not more than 250,000 acres, shall request the views of the Secretary of Agriculture as to the feasibility of achieving the major objectives of the project proposal by means of federal assistance under this Act, and shall submit a report on such survey only after carefully considering whether works of improvement under his authorities would be a more appropriate method of achieving such objectives. The respective federal agencies and cooperating local interests may consider the feasibility of preparing jointly developed plans for coordinated action. Moreover, federal agencies having responsibilities for water resource development shall take cognizance of all upstream and downstream works in place and in operation or soon to be brought into operation, and adjust any improvements so as to reflect the respective contributions of upstream and downstream works to flood protection and the conservation, development, use, and disposal of water.

[5] Or with respect to interests in land to be acquired by condemnation, provide satisfactory assurances that they will so acquire such land and other rights.

The Secretary of Agriculture may advance funds to enable such acquisition if he and the local organization agree that it is advisable to preserve sites for planned works of improvement from encroachment by residential, commercial, or other development. The funds shall be repaid, with interest, prior to construction.

[6] Such share as shall be determined by the Secretary to be equitable in consideration of national needs and assistance authorized for similar purposes under other federal programs.

and wildlife or recreational development,[7] and all of the costs applicable to other purposes, such as capacity for industrial and municipal water supplies.[8] But any part of the construction cost (including engineering costs) applicable to flood prevention and related features shall be borne entirely by the federal government, although federal assistance for "land treatment measures" shall not exceed the rate for similar practices under existing national programs.

Illinois legislation provides that when the Governor and U.S. Department of Agriculture have approved a watershed project as qualifying for assistance under the federal Watershed Protection anl Flood Prevention Act, the Illinois Department of Agriculture may enter into agreements with any federal agency or local watershed organization to furnish surveys and engineering and planning assistance for various purposes, and may request the state Soil and Water Conservation Districts Advisory Board to review plans for the improvement and maintenance of such watersheds. Local watershed organizations are defined to include soil and water conservation districts and subdistricts, drainage districts, counties, and other local governmental agencies.[9]

In addition to flood protection and other benefits, such watershed development projects may reduce the severity of some of the water-rights problems in the state, especially those projects that enlarge available water supplies for various purposes. But in such projects there may be problems of obtaining title, easements, or rights of way to land to be inundated by a reservoir and land upon which to build a dam, although such title or rights often may be donated by landowners in exchange for or anticipation of various benefits from such projects. There also may be problems such as possible liability to lower landowners for cutting off or reducing the streamflow during lowflow periods, particularly below any water-supply reservoirs. Illinois laws on such problems were discussed earlier.[10]

[7] The Secretary may participate in recreational development in any watershed project only to the extent that the need therefor is demonstrated in accordance with standards established by him, taking into account the anticipated man-days of use of the development and the availability of existing water-based outdoor recreational developments. Furthermore, his participation is limited to one recreational development in each watershed project containing less than 75,000 acres, two in a project containing 75,000 to 150,000 acres, and three in larger projects.

[8] But in addition to other authority to make loans and advancements, the Secretary may pay up to 30% of the estimated cost of the reservoir structure for any storage of water for anticipated future demands or needs for municipal or industrial purposes, if the local organization agrees to repay the cost within the life of the reservoir structure (payments beginning with interest when first so used and not to exceed 50 years from such date), and if the local organization gives reasonable assurances, and there is evidence, that the demands for such storage will be made within a period of time permitting such repayment.

[9] Ill. Rev. Stat., 1963, c. 19, §§ 128.1 to 128.3; c. 5, §§ 138.2, 109.

[10] See, *e.g.*, Flooding of Others' Lands, p. 55, and Alteration of Quantity, p. 31. See also H. Ellis, Relationships Between Water and Other Property Rights and Small Watershed Development in the Eastern States, Mimeo, ARS, U.S. Dept. Agr.; presented at Symposium on Economics of Watershed Planning, sponsored by Southeast Land Tenure Res. Comm., TVA, and Farm Foundation, Knoxville, Tenn., June, 1959.

The U.S. Department of Agriculture, as of November 1, 1963, had received 39 applications for approval of watershed projects in Illinois that had been approved by the governor (see Appendix N). Twenty-two of the applications had been approved for preparation of a work plan. Seven of these had been approved for operation, and construction had been completed in three projects. The sponsoring local organizations in six of the seven projects included a soil and water conservation district. Co-sponsors of one or another of the seven projects included cities or villages, a surface water protection district, and levee and drainage districts.

The following information was obtained in March, 1962, concerning the six projects that had been approved for operation by that date.

Three of the six projects approved for operation will include multiple-purpose structures having storage capacity for municipal water supply purposes. One of these is the Big Blue Creek Watershed Project which embraces about 26,690 acres. Construction of the authorized dams and reservoirs has been completed. The project's co-sponsors are the Pike County Soil and Water Conservation District and the City of Pittsfield. One of the two structures is a multiple-purpose dam and reservoir and the other is a floodwater-retarding structure. The purpose of the former is to provide flood protection and water supply and a basis for future development of recreational facilities. The city is to operate and maintain this structure, contract for its construction, and be responsible for securing necessary title, easements, or rights of way in this connection. It has sold bonds to help finance the project. It has purchased title to the land to be inundated by the permanent water supply pool, and surrounding lands for which a soil conservation plan has been developed. Approval of the water supply structure has been secured from the Illinois Department of Public Health, and permits have been obtained from the Department of Public Works and Buildings for this and other impoundments built on watercourses in these projects.[11]

A similar, larger project approved for operation in 1959, is the Shoal Creek Watershed Project, which embraces about 192,360 acres, or about 300 square miles. The total estimated cost was about $4,662,000, of which about $3,150,000 was covered by nonfederal expenditures. Its co-sponsors are the Montgomery County Soil and Water Conservation District, the Cities of Hillsboro and Litchfield, and the Shoal Creek Drainage District. A loan to Litchfield of $1,769,000 by the Farmers Home Administration was approved for use in financing its contributions to the project, and the City of Hillsboro applied for an FHA loan of $891,908. The State of Illinois has appropriated $125,000 for land acquisition at the site of one of the floodwater-retarding structures, and $20,000 has been donated to the City of Litchfield by the Milnot Company for development of recreational facilities around a multiple-purpose structure. Negotiations were under way to acquire title or flooding easements to lands above these two structures. Structures would be located so as to protect the outlets of the drainage systems of drainage districts located in the upper portion of the

[11] See earlier discussions of the functions of these departments.

watershed. This project's plans also provide for 20-odd miles of channel enlargement or new channel construction. A committee was formed to reactivate the dormant Shoal Creek Drainage District, which would be responsible for completing, operating, and maintaining these channel improvements.

Another similar project is the Seven Mile Creek Watershed Project, embracing about 18,460 acres, approved for operation in June, 1961. Its co-sponsors are the Jefferson County Soil and Water Conservation District and the City of Mt. Vernon. The structural measures to be installed were two floodwater-retarding structures, one multiple-purpose structure to provide supplemental municipal water supply and floodwater retardation, and channel improvements. As the watershed is located within the area encompassed by the Rend Lake Conservancy District, the Project was to be an integral part of the improvements within the District.[12] It also was contemplated that it would become a part of the Big Muddy River Watershed Project to be planned by the U. S. Corps of Engineers when funds were available.

The following three projects were approved for operation by March, 1962. 1) The Hog River-Pig Creek Watershed Project, embracing about 3,250 acres. Its co-sponsors are the St. Clair County Soil and Water Conservation District, the Mascoutah Surface Water Protection District and the City of Mascoutah. Its primary purposes included construction of a multiple-purpose (floodwater and drainage) diversion channel above the city, and channel improvement through the city and in the agricultural flood plain. 2) The Tiskilwa Watershed Project, embracing about 3,300 acres, in which construction has been completed. Its co-sponsors are the Bureau County Soil and Water Conservation District and the Village of Tiskilwa. Its primary purposes include watershed protection and flood prevention. 3) The Hambaugh Martin Watershed Project, embracing about 8,600 acres. Its co-sponsors are the Brown County Soil and Water Conservation District and the McGee Creek Levee and Drainage District. Its primary purposes include correction of sediment damage to drainage ditches, and flood protection. Construction has been completed.

An additional small watershed project in which Illinois localities were involved in March, 1962, is the West Creek Watershed Project, embracing 35,000 acres in Indiana and 5,000 acres in Illinois. The soil and water conservation districts of Will and Kankakee Counties are collaborating with the Lake County (Indiana) Soil and Water Conservation District in this project, whose purposes include flood prevention and agricultural-water management. All planned structural works of improvement were in Indiana and were to be handled by a proposed conservancy district in Indiana.

Multi-purpose impoundments such as those in the Big Blue, Seven Mile Creek, and Shoal Creek Watershed Projects were to be used for boating and fishing by the people of the State of Illinois. None of the

[12] See Activity Regarding River Conservancy Districts, p. 165, for a discussion of this District.

projects approved for operation contemplated the use of water for irrigation purposes.[13]

By November 1, 1963, one more project had been approved for operation. It was the Scattering Fork Watershed Project in Douglas, Champaign, and Coles counties. It encompasses about 73,000 acres. Its purposes are flood prevention and drainage. Its co-sponsors include several drainage districts.

In all of these projects, soil and water conservation practices would be carried out on individual farms, as required by the applicable law described earlier. Such practices may include contour farming, construction of terraces, check dams and farm ponds, planting of trees and cover crops, improvement of pastures and drainage systems.

Discussions of the authorized purposes, powers, and duties of the various kinds of local districts in Illinois involved in one or another of these projects are included earlier.[14]

The work plans for these projects state that fish and wildlife management assistance was provided by the Illinois Department of Conservation and the U. S. Fish and Wildlife Service, and that it is anticipated that the improvements will not be detrimental to wildlife and should encourage and provide better wildlife habitats. Various other state and local agencies concerned with water resources in Illinois, and the U. S. Forest Service also have provided data and other assistance in the development of various project plans. Data assembled by the U. S. Geological Survey and Weather Bureau have also been very useful.

In addition to projects being carried out under the Watershed Protection and Flood Prevention Act such as those described above, there are two "pilot" watershed projects in Illinois. They are the Old Tom Creek Project (in Warren and Henderson Counties) and the Hadley Creek Project (in Adams and Pike Counties).[15] In the Tom Creek project several floodwater and stabilizing structures have been built, and waterway improvements have been made. The Warren County Highway Department provided part of the funds for a dual-purpose structure, to provide floodwater retardation and also serve as a county roadway, replacing a bridge. The purpose of the Hadley Creek Project is prevention of floodwater, sediment, and erosion damage. In each instance, soil and water conservation districts have been the local sponsors and have secured necessary land titles, easements, or rights of way.

[13] Based on letter from B. B. Clark, state conservationist, dated March 22, 1962.

[14] It may be noted that the legislation applicable to soil and water conservation districts was amended in 1955 to broaden their functions, authorizing such districts to construct, improve, operate, and maintain flood prevention structures and to exercise condemnation powers to acquire land for general purposes. In addition, subdistricts of such districts may be created in watershed areas with power to develop and execute plans and programs for the prevention of erosion, floodwater and sediment damages, and to levy taxes, within limitations. Ill. Laws, 1955, pp. 188-206.

[15] A third project, the Money Creek Project in McLean County, has been terminated after little progress was achieved.

The pilot watershed program was initiated by Congress in 1953 when $5,000,000 was added to the 1954 Agriculture Department Appropriation Act to carry out watershed protection and flood prevention improvements on not to exceed 65 small, widely scattered watersheds. This program is conducted under the basic authority of the Soil Conservation Act of 1955.[16] In providing this appropriation, Congress directed the Secretary of Agriculture to execute these watershed projects in cooperation with local people as pilot projects to demonstrate the feasibility of and to gain experience in small watershed operations as a forerunner to basic legislation. This legislation was enacted the following year as the Watershed Protection and Flood Prevention Act, discussed earlier.

Other services and programs. In addition to its responsibilities under the Watershed Protection and Flood Prevention Act, the Soil Conservation Service provides a variety of services related to soil and water conservation to farmers, to local soil and water conservation districts established under state law, and to others. Related functions of local soil and water conservation districts, the state Department of Agriculture, and the Soil and Water Conservation District Advisory Board have been described earlier.

Through local offices of the Agricultural Stabilization and Conservation Service, federal monetary contributions may be made to farmers, within limitations, to build check dams and farm ponds or to improve farmland through other soil and water conservation measures.[17] Technical assistance in this connection also is available, through the Soil Conservation Service. As of July 1, 1961, there were 17,862 ponds in Illinois built to specifications developed by the Soil Conservation Service, either by district cooperators on their own or through cost-sharing under the Agricultural Conservation Program. Most of these were farm ponds built to provide livestock water and to control and maintain vegetation. A few larger water-storage impoundments were built primarily to control erosion.[18]

In additon to the above, the Department of Agriculture may enter into agreements up to 10 years in duration with farm and ranch owners and operators to carry out practices on their cropland which will conserve and develop soil, water, forest, wildlife, and recreation resources. Such agreements may provide for payments, furnishing of materials and services, and other assistance.[19] The Agricultural Stabilization and Conservation Service administers such agreements.

The Farmers Home Administration may make or insure real estate or operating loans to farm owners or tenants, within certain limitations or restrictions, to finance land and water development, use, and conservation, including recreational uses and fish farming. It also may make or insure

[16] 49 STAT. 163; 16 U.S.C.A. § 590a *et seq.*

[17] See 16 U.S.C.A. § 590h (b).

[18] Based on letter from B. B. Clark, State Conservationist, U. S. Soil and Water Cons. Serv., dated April 11, 1962.

[19] Within certain limitations. See 16 U.S.C.A. § 590p (e).

loans, within limitations, to associations (including nonprofit corporation and public or quasi-public agencies). Such loans may provide for soil conservation practices, the conservation, development, use, and control of water, the installation of drainage facilities, and shifts in land use, including the development of recreational facilities. Such projects are primarily to serve farmers, ranchers, farm tenants or laborers, and rural residents.[20] The FHA also may assist in planning such projects. In addition, it may make a) loans to state and local public agencies designated by the state legislature or governor, and b) loans or advancements under the Watershed Protection and Flood Prevention Act, as discussed earlier.

The Forest Service, among other functions, administers a number of national forests throughout the nation.[21] One of these is the Shawnee National Forest in southern Illinois. Such national forests are established to improve and protect the forests within their boundaries or to secure favorable conditions of water flow. They may be developed and administered for multiple use including outdoor recreation, range, timber, watershed, and wildlife and fish purposes, and to attain harmonious and coordinated management and sustained yields of the various renewable surface resources.[22] Applicable legislation includes certain provisions regarding rights to use water within national forests,[23] and rights of way within and across their boundaries for specified purposes, including the construction and maintenance of dams, reservoirs, and water plants, pipes, and canals for municipal, mining, and milling purposes.[24] Appropriation of necessary funds may be made to investigate and establish water rights necessary or beneficial in the administration or public use of the national forests.[25]

The Economic Research Service conducts research, often in cooperation with state agricultural experiment stations, universities, or other agencies, regarding legal and economic aspects of state water laws and related subjects, and economic aspects of water utilization, development and management, and flood prevention. (This publication on Illinois water-use law is a product of that research program.) The Agricultural Research Service similarly conducts physical research concerning soil and water conservation, engineering, and management.

The Department assists rural counties in obtaining benefits under the Area Redevelopment Act, discussed later, by helping local leaders develop plans and projects that will benefit from the ARA program and by reviewing area plans for development. Various other functions under the Act have been delegated to the Department of Agriculture by the Secretary of Commerce.[26]

[20] See 7 U.S.C.A. § 1921 *et seq.*
[21] See 16 U.S.C.A. § 471 *et seq.*
[22] See 16 U.S.C.A. §§ 475, 528 to 531.
[23] See *Id.* § 481.
[24] See *Id.* § 524.
[25] See *Id.* § 526.
[26] See 26 Fed. Reg. 9933 *et seq.* (1961) and Pres. Exec. Order No. 11122, Oct. 16, 1963, 28 Fed. Reg. 11171.

The Department of Agriculture has established a Rural Areas Development Program to coordinate the functions of a number of its agencies.[27] Local committees representing varied interest groups have been organized in most rural counties of the United States. The Department assists these committees in formulating and implementing area economic development programs by providing technical assistance. The Department also provides financial assistance for approved development projects. Some projects include various types of water resource development.[28]

Department of the Interior[1]

The Secretary of the Interior, by a variety of statutes, has been authorized to acquire land and water for purposes of establishing migratory-bird and other wildlife refuges, and often may construct dams, ditches, dikes, or other water control works or improvements for the benefit of the refuge.[2] The head of the state agency that administers the state's game laws (Department of Conservation in Illinois) is a voting *ex officio* member of a commission that approves the establishment of migratory bird refuges in his state.[3] A number of national wildlife refuges have been established throughout the country which are administered by the Department's Fish and Wildlife Service. By 1961 four had been established in or along the borders of Illinois. These include the Crab Orchard and Chautauqua Refuges and the Mark Twain and Upper Mississippi Refuges along the Mississippi River.[4] The latter are located in part on lands owned by the Department of the Army and a "custodial" wildlife area also has been established along the Mississippi River on federally owned land leased to the state and administered by it under a long-term contract based on plans approved by the Fish and Wildlife Service. It will be recalled that the Department of the Interior manages three lakes within the Crab Orchard Refuge which were constructed by the Corps of Engineers.

Federal laws also provide that fish and wildlife restoration projects may be established by the states in accordance with state laws. If such projects are submitted to the Secretary of the Interior and he determines that they are substantial in character and design, and if certain other requirements are met, they are approved as eligible for federal funds covering up to 75 percent of the total estimated cost of the project.[5] More

[27] The Department also has created a Rural Areas Development Board.

[28] See PEGS FOR RURAL PROGRESS: RURAL AREAS DEVELOPMENT HANDBOOK, U.S. Dept. Agr. Handbook No. 245 (1963); *U.S.D.A. Steps Up Work on Rural Area Development,* AGR. SITUATION, Oct., 1961.

[1] This discussion is adapted in part from the research referred to in note 1, p. 230. See also Trelease, *op. cit. supra,* at p. 424.

[2] See 16 U.S.C.A. § 671 *et seq.* and § 715, *et seq.*

[3] 45 STAT. 1222, 16 U.S.C.A. § 715a.

[4] Based on DIRECTORY, MIGRATORY NATIONAL WILDLIFE REFUGES, 1960, and STATUS OF NATIONAL WILDLIFE REFUGES, 1961. U.S. Dept. Interior, Fish and Wildlife Serv., Bur. of Sport Fisheries and Wildlife.

[5] Pittman-Robertson Act, *as amended* (see 16 U.S.C.A. § 669 *et seq.*); and Dingell-Johnson Act, *as amended* (see 16 U.S.C.A. 777 *et seq.*).

than $500,000 in federal funds were obligated for such projects in Illinois during fiscal year 1961-62.[6]

Whenever a project is constructed by a federal agency for such a primary purpose as flood control or aid to navigation, facilities for protection and preservation of fish and wildlife, and for recreation may be included. The U. S. Fish and Wildlife Service and the head of the agency that administers the wildlife resources of the state shall be consulted prior to the construction of such a project with a view to preventing loss or damage to wildlife resources and their development and improvement, whenever any waters are proposed or authorized to be impounded, diverted, or otherwise controlled or modified for any purpose by any federal department or agency, or by any public or private agency under federal permit or license.[7] State agencies and the U. S. Fish and Wildlife Service thus jointly plan the wildlife conservation programs in federal water development projects; the completed facilities often are supervised and administered by the state agencies.

The U. S. Geological Survey, in cooperation with the State of Illinois, operates a number of stream-gauging stations and conducts studies of water resources in Illinois. The activity includes cooperative research work with the Department of Registration and Education and the Department of Public Works and Buildings mentioned earlier.

Area Redevelopment Administration, Department of Commerce

In addition to the foregoing, a variety of other federal agencies and programs provide technical, financial, or other assistance to localities, or otherwise may affect water resources and development.[1] One of the more recent programs was the Area Redevelopment Act of 1961, which established an Area Redevelopment Administration in the Department of Commerce to conduct a long-range program of area economic redevelopment. Areas may be designated "redevelopment areas" and eligible for assistance under the Act if they meet criteria indicating substantial and persistent unemployment or underemployment. The Administration is authorized, within certain limitations and restrictions, to make loans for industrial and commercial projects,[2] and to make loans and grants for

[6] This included $472,845.64 obligated under the Pittman-Robertson Act and $53,214.15 under the Dingell-Johnson Act, based on letter from G. R. Bennett, Assoc. Solicitor, Territories, Wildlife, and Parks, Dept. Interior. The Public Works Acceleration Act of 1962 augmented these programs. See 42 U.S.C.A. § 2641, *et seq.* and 1963 Ill. Dept. Cons. ANNUAL REPORT, pp. 1 and 14.

[7] This does not apply, however, to projects for impoundment of water where the maximum surface area of such impoundments is less than 10 acres, nor to programs primarily for land management and use carried out by federal agencies on federal lands under their jurisdiction. 48 STAT. 401, 53 STAT. 1433, 60 STAT. 1080, 72 STAT. 564; 16 U.S.C.A. § 662.

[1] See HANDBOOK OF FEDERAL AIDS TO COMMUNITIES, U.S. Dept. Commerce, Area Redevelopment Adm., 1961.

[2] The federal share in financing these projects may not exceed 65%.

financing public facilities. It also may provide technical assistance, including information, consultation, and technical assistance grants; to enable private individuals, firms, research organizations, universities, and the like, to evaluate the need for proposed projects and their potentialities for economic growth.

Although the program is intended primarily for redevelopment, technical assistance also may be furnished to other areas that the Administrator finds "have substantial need for such assistance." Services may be provided at an early stage to assist areas in formulating an "overall program for the economic development of the area" which (along with being designated a "redevelopment area") is a requirement for obtaining a loan or grant. A redevelopment area's economic development program shall be approved by the Secretary of Commerce and subsequently by the state or an agency, instrumentality or local political subdivision thereof.[3] The Illinois Board of Economic Development is empowered to approve project plans for loans or grants to qualified applicants in Illinois.[4]

The Secretary of Commerce, to the extent practicable, shall use the available services and facilities of other federal agencies, and the Act is supplemental to other existing authorities of federal agencies. The Secretary has delegated relevant functions to a number of agencies,[5] and the Administrator of the Area Redevelopment Administration has been directed to coordinate federal assistance in redevelopment areas.[6]

The first technical assistance project under the ARA program was the proposed Rend Lake in Illinois, described earlier under Activity Regarding River Conservancy Districts, p. 165. A $45,000 study grant was made to the Corps of Engineers to survey the proposed reservoir in southern Illinois and determine feasibility and estimated cost of the project and recommend federal, state, and local sharing arrangements. The Area Redevelopment Administration has indicated that construction of this lake could lead to recreational development throughout southern Illinois, and major industrial expansion in a large area suffering from decline of the coal industry.[7] The Corps of Engineers has completed the requested study and the project, as proposed by the Corps, has been authorized by Congress, to be constructed by the Corps. The Area Redevelopment Administration has made available $550,000 to raise a portion of Interstate Route 57 to preserve the reservoir site, and $450,000 for pre-construction planning and design. The U. S. Fish and Wildlife Service plans to operate two small impoundments in the upper arms of the reservoir as a waterfowl

[3] 75 STAT. 47; 42 U.S.C.A. § 2501 *et seq.;* U.S. Dept. Commerce, *op. cit. supra* note 1.

Certain requirements are included for loans or grants to public utilities, to protect against competition with privately owned public utilities operating under state regulation.

[4] ILL. REV. STAT. c. 127 § 200-3(h).

[5] See 26 FED. REG. 9933 *et seq.* (1961).

[6] See *Id.* 4482 (1961).

[7] Based on U. S. Area Redevelopment Admin., Information News Serv., No. 61-3, Dec. 4, 1961.

refuge. Estimated total costs are $35,500,000, of which $24,469,000 would be federal costs. The ARA also has agreed to pay part of the cost of a study to determine feasibility of an intercommunity water distribution system.[8]

The first federal financial grant under the ARA program was made for a new waterworks in the Town of Gassville, Arkansas. A combination loan and grant was made for constructing the system to facilitate needed industrial expansion and provide employment for additional people in the vicinity of Gassville.[9]

INTERSTATE AND INTERNATIONAL MATTERS[1]

Waters wholly within the State of Illinois are the concern of the law of Illinois, except to the extent of federal jurisdiction over navigable or other waters.[2] Illinois is, however, virtually surrounded by rivers, lakes, and streams that also bound other states (see Figure 3, page 236).

The official boundaries of the State of Illinois are set forth as follows:

> Beginning at the mouth of the Wabash River, then up the same, and with the line of Indiana, to the northwest corner of said state; then east with the line of the same state, to the middle of Lake Michigan; thence north, along the middle of said lake, to north latitude 42° and 30′; thence west to the middle of the Mississippi River, and thence down along the middle of that river to its confluence with the Ohio River and thence up the latter river, along its northwestern shore, to the place of beginning.[3]

The Illinois supreme court has held that:

> . . . commercial considerations make it imperative where states or nations are divided by a navigable river each should hold to the center thread of the main channel or current along which vessels in the carrying trade pass. That is the "channel of commerce" . . .[4]

If the boundary description is not expressly otherwise, bordering states hold to the center thread of the main channel. Even if the boundary line is defined as elsewhere than the center thread, if the boundary is along a

[8] The project is described in more detail under Activity Regarding River Conservancy Districts, p. 165.

[9] Based on news release from Secretary Luther Hodges, U.S. Dept. Commerce, July 24, 1961. These and other federal public works projects were augmented by the Public Works Acceleration Act of 1962, 42 U.S.C.A. § 2641, *et. seq.*

[1] This and related matters have been investigated for Wisconsin, Minnesota, Indiana, and Ohio in research conducted by the University of Wisconsin for the U.S. Dept. Agr. under Law Professor J. H. Beuscher's supervision. The principal findings have not yet been published but the authors have benefited from a review of the unpublished results.

[2] See Federal Matters, p. 230, for a discussion of the extent of federal jurisdiction over inland waters.

[3] ILL. CONST. 1870, art. I.

[4] Buttenuth v. St. Louis Bridge Co., 123 Ill. 535, 552 (1888). See also earlier discussions concerning ownership of streambeds and easement of navigation.

stream the states share interests therein, and conflict may arise that interstate water law must resolve.[5]

The use of boundary waters and their tributaries in Illinois, and the use of these waters by out-of-state users, can be affected by decisions of the United States Supreme Court and by federal regulation. The Supreme Court has exclusive and original jurisdiction over judicial controversies between two or more states,[6] including controversies regarding interstate compacts,[7] and treaties and other international agreements or laws.

The Exclusive and Original Jurisdiction of the United States Supreme Court

The Supreme Court has asserted exclusive and original jurisdiction in cases where states are parties, even though the real parties in interest were citizens of the different states, and even though a state had no financial interest of its own in the controversy.[1] Many interstate water controversies that have been accepted within the exclusive and original jurisdiction of the United States Supreme Court have involved the states as no more than *parens patriae.* Thus, if a considerable portion of the citizens of an upstream or downstream state are adversely affected by the actions of a large number of citizens of the other state, the controversy is considered to be one of state interest, instead of mere private right, and takes on the status of a controversy between two states.[2]

With respect to exclusive and original jurisdiction, the Court may apply principles derived from international law[3] and has built an independent doctrine of interstate law known as the doctrine of equitable apportionment of benefits. When this doctrine is applied, if it is inconsistent with the internal law of the State of Illinois, it acts as a limitation or restriction upon Illinois' internal law regarding water use.[4]

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[5] The above description of the Illinois boundary in the 1870 Illinois Constitution contains this proviso: "Provided, that this state shall exercise such jurisdiction upon the Ohio River as she is now entitled to, or such as may be hereafter agreed upon by this state and the state of Kentucky."

[6] U.S. CONST., art. III, §§ 1 to 2; 28 U.S.C.A. 1251.

[7] Agreements between states, often requiring the consent of Congress for their validity. See U.S. CONST., art. I, § 10, cl. 3.

[1] Missouri v. Illinois, 180 U.S. 208, 241-242 (1901).

A 1962 statute enables federal district courts to assume concurrently with the Supreme Court original jurisdiction of certain cases concerned with construction or application of an interstate compact involving pollution of an interstate river system if the compact expresses the signatory states' consent to be so sued. 76 STAT. 957; 33 U.S.C.A. § 466g-l.

[2] See Kansas v. Colorado, 206 U.S. 46, 99 *et seq.* (1907).

[3] *Ibid.*, p. 97.

[4] *Ibid.* See also Missouri v. Illinois, *supra;* Rickey Land and Cattle Co. v. Miller and Lux, 218 U.S. 258 (1909); Bean v. Morris, 221 U.S. 485 (1911); Georgia v. Tennessee Copper Co., 206 U.S. 230 (1907); Wyoming v. Colorado, 259 U.S. 419 (1922); Connecticut v. Massachusetts, 282 U.S. 660 (1931).

By the same token, it may act as a restriction upon the use of boundary waters by other states and their citizens, thus acting to protect rights of Illinois and its citizens.

In the application of the doctrine of equitable apportionment of benefits, results depend upon the standard used by the Court. For example, in cases where the internal law of both states adheres to the same doctrine the court will usually follow that doctrine.[5] In Illinois, where all surrounding states adhere to some form of the doctrine of riparian rights, that doctrine would probably generally be used as a standard. But the Court has stated, in a case seeking preservation of navigability, that simply because both states followed the doctrine of riparian rights in their internal law, its use was not necessary in the application of the interstate doctrine of equitable apportionment of benefits.[6]

Finally, in the equitable apportionment cases, the United States Supreme Court has emphasized (in the words of Mr. Justice Holmes) that:

> Before this court ought to intervene the case should be of a serious magnitude, clearly and fully proved, and the principle to be applied should be one which the court is prepared deliberately to maintain against all considerations on the other side.[7]

In *Missouri v. Illinois,* after considerable discussion, the Court decided that the test of serious magnitude had not been met.

The Supreme Court has made divisions of water in states other than Illinois. In particular cases it has said that existing or threatened diversions are within the share of the diverting state,[8] that an upper state may have a stated quantity of water[9] or a stated percentage of the flow,[10] or that certain practices must be observed or new uses limited.[11]

The allocation of water to users within the state is limited by the United States Supreme Court's declarations and, within these limits, Illinois may administer and enforce its own internal laws.[12] To the extent that a particular user's right is impaired by the Supreme Court decree, he has no remedy. The state is deemed to represent all of its citizens and they are all bound by its conduct of the litigation. The allocation within the state of the allotted water usually is a matter for state law to decide.[13]

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[5] Wyoming v. Colorado, *supra.* However, in a case between two states adhering to the prior appropriation doctrine, where strict application of the doctrine would have disrupted an economy that had existed for years without objection, the Court protected existing uses in applying its doctrine of equitable apportionment of benefits. See Nebraska v. Wyoming, 325 U.S. 589 (1945).

[6] See Connecticut v. Massachusetts, 282 U.S. 660 (1931).

[7] Missouri v. Illinois, 200 U.S. 496, 521 (1906), discussed in more detail under Water Pollution, p. 276.

[8] Kansas v. Colorado, *supra.*

[9] Wyoming v. Colorado, *supra.*

[10] Nebraska v. Wyoming, *supra.*

[11] *Ibid.*

[12] Wyoming v. Colorado, *supra.*

[13] New Jersey v. New York, 345 U.S. 369 (1953).

Suits Involving Diversity of Citizenship

The United States Constitution provides a forum in the Federal courts for litigants having citizenship in different states.[14] Illinois also holds its courts open to litigants from other states.

A number of water-rights cases have been decided in state and federal courts where claims cross state boundaries and the litigants are citizens of different states. However, no such case seems to have been decided in Illinois.

A leading case, *Manville Co. v. City of Worcester,*[15] enunciates, through Mr. Justice Holmes, some applicable general principles. In that case, an upstream owner in Massachusetts diverted water to the injury of defendant's land in Rhode Island. It was held that since a remedy for this injury was recognized both under Rhode Island and Massachusetts law the Rhode Island plaintiff could recover in Massachusetts. It has been held that the claimant can recover in either the upstream or the downstream forum,[16] if the law in the jurisdiction where the injury occurred would allow a recovery for the wrong.[17]

Compacts

If two or more states have interests in a body of water, they may control their use of it (and that of their citizens) by interstate compact, subject to the consent power of Congress.[1] The United States Supreme Court has held that the congressional consent requirement applies only to compacts "directed to the formation of any combination tending to increase political power in the States, which may encroach upon and interfere with the just supremacy of the United States."[2] Thus, if the compact creates only research and advisory powers, or implements powers the compacting states already have, the compact apparently need not have the consent of Congress to be lawful.

It may be noted that the 1956 amendment to the U. S. Water Pollution Control Act[3] specifies that the consent of Congress is given to interstate compacts concerning water pollution control within the terms of the Act,

[14] U. S. Const., art. III, § 2. Federal district courts have original jurisdiction in such cases if the controversy involves more than $10,000. 28 U.S.C. §§ 1332 and 1441.

[15] 138 Mass. 89 (1884).

[16] *Ibid.*

[17] See Slack v. Walcott, 3 Mason 508, 516 (1825). In other words, the court hearing the case must apply the law of the place where the injury occurred, whether it be the court of that jurisdiction or the court of defendant's jurisdiction, and even though that law is not consistent with the local law of the forum.

[1] Congress has refused to consent to a flood control compact deemed inconsistent with federal interests. See 81 Congr. Rec., pp. 383, 9669 (1937). Since such consent is legislation, the President can exercise veto power (as did President Truman on the original Republican River Compact). See H. R. Doc. 690, 77th Congr., 2nd Sess. (1942).

[2] Virginia v. Tennessee, 148 U.S. 503, 519 (1893); 81 C.J.S. 903 (1953).

[3] Retained in 1961 amendment. See 33 U.S.C.A., § 466b.

but that "no such agreement or compact shall be binding or obligatory upon any state a party thereto unless and until it has been approved by the Congress."

The State of Illinois is a signatory to the following interstate compacts involving boundary waters: 1) the Bi-State Development Agency, first adopted in 1949, and supplemented in 1953,[4] 2) the Great Lakes Basin Compact, adopted in 1955,[5] 3) the Wabash Valley Compact adopted in 1959[6] and 4) the Ohio River Valley Water Sanitation Compact, adopted in 1948.[7] Each of these compacts will be discussed separately.

Bi-State Development Agency. An interstate compact between Illinois and Missouri, adopted in 1949, provided for the establishment of a Bi-State Development Agency. By Article III, this Agency is given the power to plan and establish policies for sewage and drainage facilities and to submit plans to the communities involved for coordination of their water-supply and sewage-disposal works, as well as recreational and conservation facilities or projects.

A later addition to the compact gave further powers to the Agency. The Agency has the power to acquire land by condemnation, if necessary, and to construct and operate, or lease to others, bridges, tunnels, airports, wharves, docks, harbors, warehouses, grain elevators, commodity and other storage facilities, sewage-disposal plants, passenger transportation facilities, and air, water, rail, motor vehicle, and other terminal facilities. It is also authorized to contract with municipalities and other political subdivisions for the services or use of any facility owned or operated by the Agency.

The Agency is authorized to borrow money to acquire property and carry on construction, and can issue negotiable notes or bonds in evidence of the sum borrowed. It can also issue bonds in writing for the purpose of refunding, extending, or unifying any indebtedness. Such bonds are

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[4] ILL. REV. STAT., c. 127, § 63r-1 *et seq.*

Complementary laws: Missouri, Vernon's ANNOT. MO. STAT., §§ 70.37 to 70.375; U.S., 64 STAT. 568.

[5] ILL. REV. STAT., c. 127, §§ 192.1 to 192.4.

Complementary laws: Indiana, Burn's ANNOT. STAT., §§ 68:901 to 68:905; Michigan, LAWS 1955, No. 28; Minnesota, M.S.A. 1:21 to 1:25; New York, LAWS 1960, c. 643; Pennsylvania, 32 P.S., §§ 817.1 to 817.6; Wisconsin, W.S.A., §§ 30.22 to 30.23; Ohio O.R.C., § 6161.01 *et seq.*

[6] ILL. REV. STAT., c. 127, § 63t-1, *et seq.*

Complementary laws: Indiana, LAWS 1959, c. 3; U.S., PUB. L. 86-375; 73 STAT. 694.

[7] ILL. REV. STAT., c. 111½, § 117 *et seq.*

Complementary laws: U.S., 33 U.S.C.A., § 567a; Indiana, LAWS, 1939, c. 35; Kentucky, KRS 220:550 to 220:570; New York, LAWS, 1939, c. 945; Ohio, R.C. §§ 6113.01 to 6113.04; Pennsylvania, 1945, April 2, P.L. 103; Tennessee, T.C.A., §§ 70-401 to 70-409; Virginia, LAWS, 1948, p. 276; West Virginia, CODE, §§ 2777(15) to 2777(20).

It may also be noted that Indiana has enacted legislation to create an "Interstate Port District of Illinois and Indiana" to take effect upon the enactment by Illinois of legislation having substantially the same effect and embodying the agreement contained in the act. Burn's IND. STAT. ANNOT., § 68-401 *et seq.*

to be payable out of revenues collected for the use of any facility owned by the Agency or any other of its resources and may be secured by mortgages on the property. The amendment provides for a maturity period not to exceed 30 years and an interest rate not to exceed 6 percent per annum, and such negotiable instruments cannot be sold for less than 95 percent of par value.

Great Lakes Basin Compact. In 1955 the Great Lakes Basin Compact became effective. It was to become binding whenever any four of the states of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin approved it.[8] All the designated states have approved it. The Compact also allows for membership by the Canadian province of Ontario, but it apparently has not signed the Compact.

The Congress has not yet consented to the Great Lakes Basin Compact, but its implementation is apparently proceeding on the grounds that consent is not necessary for one of the reasons set out earlier.[9] If it is assumed to have received the consent of Congress under the U. S. Water Pollution Control Act, the Compact apparently would nevertheless not yet be binding on the party states because of the final clause of the Act, which expressly requires congressional approval for the states to be bound.[10]

The Great Lakes Basin Area is set out in Article III of the Compact, as being so much of the following as may be within the party states: Lakes Erie, Huron, Michigan, Ontario, St. Clair, and Superior, and the St. Lawrence River, together with any and all natural or manmade water interconnections between or among them, and all rivers, ponds, lakes, streams, and other watercourses which, in their natural state or in their prevailing condition, are tributary to Lakes Erie, Huron, Michigan, Ontario, St. Clair, and Superior, or any of them, or which comprise part of any watershed draining into any of the said lakes.

Article I gives the purposes of the Compact and states that, through means of joint or cooperative action, the parties are: 1) to promote the orderly, integrated, and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin; 2) to plan for the welfare and development of the water resources of the basin as a whole, as well as for those portions of the basin that may have problems of special concern; 3) to make it possible for the states of the basin, and their people, to derive a maximum benefit from utilization of public works in the form of navigational aids, or otherwise, which may exist or which may be constructed from time to time; 4) to advise in securing and

[8] Illinois ratified the Compact in 1955. ILL. REV. STAT., c. 127, §§ 192.1 to 192.4. See ILL. REV. STAT. ANNOT., c. 127, § 192.4, for citation of complementary laws of the other states.

[9] See Hearings Before Subcommittee of the Committee on Judiciary, U.S. Senate, 85th Congr., 2d. Sess., on S. 1416, March 26 and 27, 1958, pp. 42-50. Unlike the Ohio River Sanitation Compact, discussed later, the effective operation of the Great Lakes Compact was *not by its terms* made to depend upon the consent of Congress.

[10] 33 U.S.C., § 466b(b).

maintaining a proper balance among industrial, commercial, agricultural, water supply, residential, recreational, and other legitimate uses of the water resources of the basin; and 5) to establish and maintain an intergovernmental agency to the end that the purposes of the Compact may be accomplished more effectively.

Article IV of the Compact creates an agency of the parties, known as the Great Lakes Commission. The Commission has been organized since 1955, and has been making studies relating to its duties under the Act.

The Commission can sue and be sued, and can acquire, hold, and convey real and personal property. It is comprised of from three to five commissioners from each party state. Each state delegation is entitled to three votes. Commissioners present from a majority of the states constitute a quorum for the transaction of business. Action usually is by majority vote. Commissioners of any two or more states are authorized to meet separately to consider problems of particular interest to their states. But action taken at such a meeting is not considered action of the entire Commission unless the Commission specifically approves it.

Article IV states that the Commission has no power to pledge the credit of any party state. It is required to make and transmit annually to the legislature and governor of each party state a report covering the Commission's activities for the preceding year and embodying those recommendations as may have been adopted by the Commission. The Commission may borrow, accept, or contract for, services of personnel from any state or the federal government, or their agencies, or from any intergovernmental agency or from any institution, person, firm, or corporation. It may accept all donations and gifts and grants of money, equipment, supplies, materials, etc., from any such source.

The Commission has powers only of research, consideration, and recommendation. But these powers cover a wide range of activities on water use and development. The Commission can collect, interpret, and report data relating to the water resources in the basin. It can consider the need for and desirability of public works and improvements relating to the resources, as well as means of improving navigation and port facilities, and improving and maintaining fisheries. It can recommend methods for the orderly, efficient, and balanced development, use, and conservation of the water resources of the basin. It also can recommend policies relating to water resources, including the initiation and alteration of floodplain and other zoning laws, ordinances, and regulations, and uniform or other laws, ordinances, or regulations relating to the development, use, and conservation of the water resources of the basin. The Commission also can recommend mutual arrangements expressed by concurrent or reciprocal legislation by Congress and the Parliament of Canada, including certain items relating to the Boundary Waters Treaty of 1909 between the United States and Canada.

Article VII of the Compact specifies that each party state agrees to consider whatever action the Commission recommends in respect to:

a) stabilization of lake levels; b) measures for combating pollution, beach erosion, floods and shore inundation; c) uniformity in navigation regulations within the constitutional power of the states; d) proposed navigation aids and improvement; e) uniformity or effective coordinating action in fishing laws and regulations, and cooperative action to eradicate destructive parasitical forces endangering the fisheries, wildlife, and other water resources; f) suitable hydroelectric power development; g) cooperative programs for control of soil and bank erosion for the general improvement of the basin; h) diversion of waters from and into the basin; and, i) any other measures the Commission may recommend to the states pursuant to the compact.

Wabash Valley Compact. The Wabash Valley Compact between Illinois and Indiana, ratified by each and by the federal government, covers the Wabash River, its tributaries, and all land drained by that river and tributaries, to whatever extent they lie within Indiana and Illinois.

Article I of the Compact states that the Wabash Valley suffers from a lack of comprehensive planning for the optimal use of its human and natural resources and that under-utilization and inadequate benefits from its potential wealth are likely to continue until there is a proper organization to encourage and facilitate coordinated development of the valley as a region, and to relate its agricultural, industrial, commercial, recreational, transportation, development, and other problems to the opportunities in the valley. The states entered into the Compact for the purpose of remedying these conditions.

Article III of the Compact creates the Wabash Valley Interstate Commission. The Commission is to be comprised of seven commissioners from each state. The federal government also may be represented, but it will be without vote.[11] Each authorized commissioner from the party states has one vote. The majority of the members from each state constitutes a quorum and a majority vote is needed to pass on any item.

The Commission may employ or accept the services of personnel from any state or federal agency, and may accept donations and grants of money, equipment, supplies, services, etc., from any such agency. For financing beyond these sources, the Commission is to submit to each party state a budget of estimated expenditures, with specific recommendations of the amount to be appropriated by each state.

Article V authorizes the Commission to establish a technical advisory committee to be comprised of representatives of departments or agencies of the party states having significant interest in the subject matter of the Commission's work. Article V also provides for the establishment of other advisory and technical committees comprised of private citizens, expert and lay personnel, representatives of industry, labor, commerce, agriculture, civic associations, and officials, and officials of local, federal, and state governments.

[11] The U. S. Congress has consented to this Compact.

The Commission is specifically charged with the encouragement of citizen organization and activity for promotion of the Compact's objectives. Functions of the Commission are listed in Article VI of the Compact. It has the power only to promote, recommend, and study. These powers extend to all aspects of the water resources of the Wabash Valley.

Ohio River Valley Water Sanitation Compact. Eight states are parties to a compact covering the Ohio River Valley. These are New York, Pennsylvania, Ohio, Virginia, West Virginia, Kentucky, Indiana, and Illinois. The Congress has expressly consented to this Compact.

The Commission created under this Compact has certain regulatory powers. Article VI of the Compact provides for the absolute prohibition of discharge of raw sewage into the Ohio River or its tributary waters which form boundaries between, or are contiguous to, two or more signatory states, or which flow from one such state into another. It requires primary treatment (subtantially complete removal of all settleable solids) and removal of not less than 45 percent of the total suspended solids, with the added proviso that higher treatment can be required by the Commission where it determines this to be necessary.[12] The Commission is given rule-making power, and administrative and enforcement powers in the courts.[13] However, Article IX provides that the Commissioners from each state may veto any pollution control order to go into effect in their state.

The Commission's eleventh *Annual Report* in 1959 stated:

On June 30, 1948, eight states in the Ohio River Valley signed a compact pledging united effort in a regional crusade for clean streams. . . . In undertaking this task the commissioners faced the reality of generating action from millions of people and hundreds of industries. For example, a decade ago the Ohio River was everybody's repository for waste and nobody's responsibility. Less than one percent of the 3½ million people along its banks provided sewage treatment! Today, treatment plants are operating or being completed to serve 95 percent of the population. Meantime, there has been substantial progress in curbing the indiscriminate discharge of industrial wastes.

Whatever has been accomplished, however, provides no basis for complacency. Conditions in the upper Ohio, and on some of the tributaries are still far from satisfactory. Oil pollution, for example, as well as the discharge of certain industrial effluents hardly can be said to be under adequate control. Neither has there been a demonstrable reduction in acid discharges from coal-mining operations. And a few communities have been notably laggard in meeting their obligation.[14]

In its *Fourteenth Annual Report* in 1962, the Commission reported that construction had been completed or was underway for treatment plants at all major and most minor sources of sewage pollution, and 85

[12] The Compact states that it is recognized that no single standard for the treatment of sewage or industrial wastes is applicable in all parts of the district embraced by the Compact.

[13] Copies of rules, regulations, and standards promulgated by the Commission are available from it.

[14] The report included a listing of the Commission's goals and the status of progress toward reaching them.

percent of the industrial establishments were in compliance with at least basic control requirements. But further improvement was needed. For example, 7 of 18 Illinois industries were reported to be providing inadequate pollution control, and 15 of 69 municipal and institutional sewage-treatment facilities in Illinois were not yet providing acceptable control. This report also noted that, while construction of adequate control facilities is an important first step, "Of equal concern are manifestations of careless or incompetent operation of control facilities." The report also described some of the other functions of the Commission, as follows:

Preventive measures for minimizing seasonal degradation of river quality by salt-bearing wastes have been adopted by the eight states, and are being applied to two-thirds of the chloride-salt load that could affect the Ohio River.

Contamination resulting from the transport and storage of oil, one of the most elusive pollution-control problems, is being checked by airplane and boat surveillance, and notably with the aid of U. S. Coast Guard personnel in the Cincinnati area.

Procedures for amelioration of acid-mine-drainage pollution have been promulgated by ORSANCO, given endorsement by representatives of the coal industry, and are now being applied. This development has much significance because mine-drainage in some places was legally exempted from regulation until "practicable means for control" had been demonstrated. Such exemptions no longer apply in the Ohio Valley states, and thus the way has been cleared for enforcement of control measures.

River-quality monitoring, along with the conception and creation of an electronic-sentinel system, has been pioneered by ORSANCO. It offers a new technique in maintaining vigilance on water conditions and for detection of control violations.

River-protection opportunities have been further enhanced by introduction of a hazard-alert procedure to deal with the unavoidable risk occasioned by spills and accidental discharges. This unique operation was made possible by arrangements with members of ORSANCO industry and water-user committees. It has been improved through development of a special service from the U. S. Weather Bureau in forecasting daily information on volume and velocity of river flows.

Sponsorship of studies to provide essential data for determining future pollution-control needs has resulted in: Exploration of physiological aspects of water quality with respect to toxicity of trace substances; an appraisal of the aquatic-life resources of the Ohio River; and the continuing assay of radio-activity in river silt, fishes and plankton.

Another important function of the Commission is its effort to secure improvements in the pollution-control laws of the member states.

In 1959 the Commission was requested by the State of West Virginia to exercise its interstate compact enforcement powers in regard to pollution discharged into the Ohio River by Huntington, West Virginia. The city had been violating an order of the state's Water Commission, the validity of which was upheld by the state's supreme court in 1953. After conferences, hearings, and study, the Commission in 1960 rejected the city's proposed plan and agreed to exercise its enforcement powers. But this action was temporarily held in abeyance to allow the city officials to

review the matter further. The Commission and the city eventually worked out a construction and financing plan, which the Commission approved, the city being required to report periodically to the Commission on the status of its progress.[15]

The Commission had earlier intervened in four other situations. It did so at the request of the State of Indiana concerning pollution being discharged by the City of Terre Haute, Indiana (into the Wabash River about 14 miles upstream from the Indiana-Illinois state line), and at the request of the State of Ohio concerning pollution at Gallopolis, Pomeroy, and Middleport, Ohio.[16] Formal hearings by the Commission were not needed regarding Terre Haute because the city adopted an acceptable plan of action after being prodded by the Indiana Stream Pollution Control Board and the Commission. The Commission intervened with the City of Gallopolis, Ohio, in 1956, and the city began construction of a sewage-treatment plant.[17] Fact-finding committees have made reports regarding Pomeroy and Middleport, and a hearing has been held regarding Middleport.[18]

In a report in 1959, the Governor of Illinois said that since three-fourths of the remaining 5 percent of the Illinois population not yet served with treatment plants was along interstate waters, interstate problems were important in pollution control. He added that the Ohio River Valley Water Sanitation Compact had demonstrated that such agencies can effectively solve such interstate water problems.[19]

In 1960 the Commission adopted a resolution to promote the use of an embargo on sewer extensions, by which the signatory states pledged themselves to a policy of issuing permits for extension of sewers in a community "only when adequate treatment facilities exist or are definitely assured within a time satisfactory to the state." The Commission's *Twelfth Annual Report* in 1960 noted (at page 8) that in recent years the States of Illinois, Indiana, and Pennsylvania had been denying sewer-extension permits to municipalities that had shown little disposition to meet sewage-treatment problems, and added: "It was the exchange of this experience that prompted the ORSANCO action, which is intended to promote application of the procedure throughout the interstate compact district."

[15] Based upon the Commission's 11TH ANNUAL REPORT, 1959.

[16] Based upon the Commission's 13TH ANNUAL REPORT, 1961, p. 3.

[17] Based upon the Commission's 11TH ANNUAL REPORT, 1959, p. 5, and letter dated March 18, 1963, from Robert K. Horton, the Commission's acting director.

[18] Based upon letter dated March 5, 1963, from Robert K. Horton, the Commission's acting director. This letter also indicates that the Ohio Water Pollution Control Board adopted a resolution in 1961 to secure the Commission's intervention regarding pollution at Youngstown, Ohio. But such action was postponed at the request of the Ohio commissioners and Youngstown later began construction of a sewage-treatment plant.

[19] WATER RESOURCE ACTIVITIES IN THE UNITED STATES; VIEWS AND COMMENTS OF THE STATES, Select Comm. on National Resources, U.S. Senate, Comm. Print No. 6 (1961), p. 61.

Lake Michigan

Special characteristics. The Illinois boundary line runs from the northwest corner of the Indiana line, east to the middle of Lake Michigan, then north along the middle to latitude 42°30′ north, then west to the east terminus of the land line between Illinois and Wisconsin.[1] Thus, Illinois has 640 square miles, or 0.3 percent, of the total Great Lakes Drainage Basin area, and has 63 miles, or 0.6 percent, of the total shoreline of the Great Lakes.[2] Even though this is a very small part of the total, it places Illinois in a position whereby it can greatly affect not only the interstate waters of Lake Michigan and the other Great Lakes, but also the international boundary waters of the Great Lakes area, excluding Lake Michigan.[3] Furthermore, Illinois has a unique topography. The Continental Divide that separates the Great Lakes Basin (or St. Lawrence) from the Mississippi Drainage Basin is situated only a few miles southwest of the confluence of the Chicago River with Lake Michigan. Illinois can claim the distinction of being perhaps the only place in the world where the drainage pattern of a substantial portion of a continent has been reversed by moving a relatively few tons of earth. This was accomplished by reversing the flow of drainage into Lake Michigan so as to make part of the river flow into the Des Plaines River and ultimately into the Mississippi River.

Illinois law. The state holds title to that part of the lake bed that lies within its boundaries in trust for the people of the State of Illinois. Therefore, riparian owners have no more rights inherent in the bed of Lake Michigan than do other Illinois citizens.[4] The property line of riparian owners bordering Lake Michigan is the waterline as it usually exists when unaffected by storms, piers or other disturbing causes (and is not the high-water mark) although riparian owners have a right to accretions and a right of ingress and egress to their property.[5] Since the state holds the bed of Lake Michigan in trust for the people, it cannot alienate the bed except for purposes that aid commerce or that do not impair the public interest,[6] but for proper purposes it apparently may do so.[7] Further-

[1] See Ill. Const. 1870, art. 1. See also 1913 Ops. Att'y Gen. 503.

[2] See 37 U. Detroit L. J. 96, 102, 103, tables 2, 3 (1959).

[3] Lake Michigan is not international boundary water, within the terms of the Boundary Waters Treaty, 1909, but connects with such water. It may be international water for other purposes.

[4] Miller v. Comm'rs of Lincoln Park, 278 Ill. 400 (1917); Revell v. People, 177 Ill. 468 (1892).

[5] Brundage v. Knox, 279 Ill. 450, 470 *et seq.* (1917); Miller v. Comm'rs of Lincoln Park, *supra;* Revell v. People, *supra.*

[6] Ill. Cent. R.R. v. Chicago, 173 Ill. 471 (1918); *aff'd* 176 U.S. 646; Comm'rs of Lincoln Park v. Fahrney, 250 Ill. 256 (1911).

[7] Bowes v. Chicago, 3 Ill. 2d. 175 (1954); *cert. denied* 348 U.S. 857. See discussion of this case and federal cases regarding federal law in this regard, note 10, p. 85.

more, any grant by the state is subject to the paramount right of the federal government to control navigation.[8]

Illinois law specifies that the shorelines of Lake Michigan are within the jurisdiction of the Department of Public Works and Building.[9] It further declares that the Department of Public Works and Buildings shall cooperate with federal and state agencies for regulation and maintenance of the levels of Lake Michigan and the Great Lakes and shall make suggestions for control and regulation of diversion of water from the lakes.[10] It is further charged with making all necessary surveys, collecting data, and cooperating with other agencies in forming plans and constructing all projects to regulate the lake levels.[11]

Illinois law further limits the building of any causeway, harbor, or mooring facility on Lake Michigan to that area lying south of the Chicago River entrance, west of the U.S. Inner Breakwater, north of East 11th Place extended, and east of the Harbor Line established by the Secretary of War on May 3, 1940.[12]

Another Illinois statute provides that, if an Illinois muncipality and an adjacent municipality of a neighboring state desire, they can jointly construct a sewage disposal plant, or the adjacent municipality can construct it in or near the Illinois municipality, and they can operate it jointly.[13] There are other instances of cooperation between state or local agencies, districts, and similar agencies with those of other states.

The Chicago diversion. The attempt, with relative success of the Sanitary District of Chicago, under authority from the State of Illinois, to divert a large amount of water from Lake Michigan and ultimately into the Mississippi River, has received about as much attention since the early 1900's as has any single water problem. This diversion has international implications, as well as interstate implications.

The controversy arose when the Sanitary District of Chicago, pursuant to Illinois laws and usually under permit from the Secretary of War, attempted to divert substantial quantities of water for the purpose of flushing sewage effluent from Lake Michigan into the Chicago Sanitary and Ship Canal. The canal crossed the low Continental Divide and thereby reversed the natural flow of the Chicago River and its South Branch, discharging into the Des Plaines and eventually into the Mississippi.[14]

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[8] *Ibid.*

[9] ILL. REV. STAT., c. 19, § 71.

[10] *Id.* § 119.

[11] *Id.* § 120.

[12] *Id.* § 65.

[13] *Id.*, c. 24, §§ 61-1 to 61-9.

[14] For a description of the Sanitary District of Chicago, see Special Sanitary Districts. In 1955 the district was renamed "The Metropolitan Sanitary District of Greater Chicago."

For succinct statements of the factual history of the case, see Wisconsin v. Illinois, 278 U.S. 367, 401 *et seq.* (1928), and 13 MARQUETTE L. REV. 191-197 (1929). For other discussions see 30 MARQUETTE L. REV. 149, 228 (1946-7); 31 MARQUETTE L. REV. 28 (1947-48); 51 NORTHWESTERN U. L. REV. 653 (1957); hearings regarding the Lake Michigan water diversion, House Public Works Comm., 86th Congress, 1st Sess. (Y4, P 9/11:86/2).

In 1899 the Sanitary District of Chicago received a permit from the Secretary of War[15] to open a newly constructed drainage canal assumed to have a flowage capacity of 5,000 cubic feet per second. Later modification reduced the permitted diversion to 4,167 c.f.s., but the Sanitary District diverted more than this maximum and the United States sued in a federal district court for an injunction prohibiting excessive diversion. Years later (in 1925), the United States Supreme Court affirmed an injunction limiting the diversion to the permitted amount, without prejudice to any permit that might be issued by the Secretary of War under authority granted by the law.[16] The same year the Secretary of War temporarily enlarged the permit for diversion, up to 8,500 c.f.s., but upon condition that specified treatment works be constructed.[17]

In 1929 the United States came to a decision on consolidated original actions brought more than a decade earlier by Wisconsin, Minnesota, Ohio, Pennsylvania, and New York, concerning these Chicago diversions,[18] and, in 1930, a decree was issued which cut the permitted diversion on a sliding scale ultimately to 1,500 c.f.s.[19] This was in addition to the water withdrawn from Lake Michigan for Chicago's municipal water supply, which is ultimately dumped into the Chicago Drainage Canal and flows down the Mississippi.

In its earlier 1929 decision, the Court concluded that there was no direct congressional authorization for the Chicago diversion as a means of promoting the navigability of the Mississippi River and connecting waterways, and that the Secretary of War could have authorized such diversion only for the purpose of protecting the navigable condition of the Chicago River and the port of Chicago.[20]

Using the 1930 decree as a base, the Court, in 1956 and 1957, increased the amount of diversion allowed, although only on a temporary basis, to alleviate an emergency in navigation caused by low water in the Mississippi River.[21]

Although Chicago's municipal water supply diversion was not in dispute and was excluded from the 1930 decree, Mr. Justice Holmes stated

[15] As authorized under 30 STAT. 1151 (1899). Work on the canal had begun years before and various permits had been received from the Secretary of War. See 278 U.S. 367, 401 *et seq.*

[16] Sanitary Dist. of Chicago v. United States, 266 U.S. 405 (1925).

[17] See Wisconsin v. Illinois, *supra.*

[18] 278 U.S. 367 (1929).

[19] Wisconsin v. Illinois, 281 U.S. 179 (1930).

[20] 278 U.S. 367, 416-421.

It may be noted that in an earlier case, Missouri v. Illinois, the Court dismissed a suit brought to enjoin the Sanitary District's pollution of waters leading into the Mississippi River. This is discussed under Water Pollution, p. 276. In the suit brought by Wisconsin and other states, Missouri changed sides and intervened (along with other states bordering the Mississippi below Illinois) on the side of Illinois because it felt the Chicago diversion improved the navigability of the Mississippi. See *Id.* 367, 397.

[21] See *Ibid.;* 352 U. S. 945 (1956); 352 U.S. 983 (1957).

that if the amount withdrawn for domestic purposes should become excessive it would be open to complaint, and added that "Whether the right for domestic use extends to great industrial plants within the District has not been argued, but may be open to consideration at some future time."[22]

There has recently been a petition to reopen the 1930 decree for alterations.[23] This petition has been referred to a special master, and the United States has intervened. It appears that a broad range of questions is being investigated.[24]

International application. International law and treaties apply to the part of Lake Michigan within the boundaries of Illinois, and apply to acts by the state or its citizens, in the use of water from Lake Michigan affecting the Great Lakes or its tributaries. They also give certain rights to citizens of Canada concerning the use of that part of Lake Michigan located over Illinois lands. The Treaty of Washington, 1871, granted to Great Britain, for Canada, equality of treatment with regard to navigation on all of Lake Michigan. Article I of the Boundary Waters Treaty, 1909, includes a similar provision.[25]

The Chicago diversion problem gives rise to questions having international implications under the Boundary Waters Treaty of 1909, as well as under general principles of international law. In the second paragraph of Article I, the express inclusion of Lake Michigan in the right of free navigation is unmistakably clear. That right, set out in the first paragraph, is to the effect that navigation of the waters shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws and regulations of either country within its own territory not inconsistent with such privileges of free navigation, and applying equally and without discrimination to the inhabitants, ships, vessels, and boats of both countries.

Articles III, IV, VII, VIII, IX, and X of the Boundary Waters Treaty of 1909 set up the International Joint Commission and defined its powers. By Article III the Commission must approve any uses, obstructions, or diversions of boundary waters on either side of the boundary line between the United States and Canada which would affect the level or flow of boundary waters on the other side. But Article III apparently applies only to boundary waters as defined in the Treaty, thus expressly excluding Lake Michigan from the application of its provisions.[26]

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[22] *Ibid.;* 281 U.S. 179, 200 (1930). The Court denied a request that the Sanitary District be required to return the sewage effluent to the lake.

[23] 355 U.S. 909 (1958).

[24] 362 U.S. 957 (1960).

[25] U.S. Treaty Ser., No. 548; 36 STAT. 2448, prelim. art. and art. I. By the U.S. CONST., art. II, § 2, the states have surrendered to the U.S. Government all treaty-making powers, and such treaties are the supreme law of the land (art. VI, par. 2).

[26] Furthermore, this provision excludes uses, obstructions, and diversions permitted prior to the Treaty. This may provide an additional basis for excluding the diversion by the Chicago Sanitary District of water from Lake Michigan through the drainage

Under Article IX, any questions or matters of difference that arise between Canada and the United States involving the rights, obligations, or interests of either in relation to the other, or to the inhabitants of the other along the common frontier, can be referred to the International Joint Commission for examination and report, whenever any one of the governments shall so request. However, the Commission is given no power to make an award, but only a power to investigate.

Under Article X, if any questions or matters of difference arise involving the rights, obligations, or interests of either of the parties, such matters may, with the consent of both parties, be referred for decision to the International Joint Commission.

Article II of the Treaty specifies that each of the parties reserves to itself exclusive jurisdiction and control over the use and diversion, whether temporary or permanent, of all waters on its own side of the line which in their natural channels will flow across the natural boundaries or into boundary waters;

. . . but it is agreed that any interference with or diversion from their natural channel of such waters on either side of the boundary, resulting in any injury on the other side of the boundary shall give rise to the same rights and entitle the injured party to the same legal remedies as if such injury took place in the country where such diversion or interference occurred.[27]

It has been argued that this clause is not intended to be a nullity, but rather that it gives a substantive remedy to the citizens of Canada (and also perhaps its agencies, or the government itself) for injuries incurred as the result of an act in the United States by its citizens, agencies, or government (including state governments and agencies) that would be cognizable before a state or federal court in the United States, if the injured party were a United States citizen and the injury had occurred in the United States in the same jurisdiction.[28] This same application would exist if the nationalities of the parties were reversed.[29] Both the

canal and down the Mississippi River, because that diversion was already being made at the time of the Treaty. However, this would not necessarily exclude increases in the rate of diversion, etc., since the date of the Treaty, as this provision states that "no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, shall be made except by authority of the United States or the Dominion of Canada . . . and with the approval . . . of . . . the International Joint Commission." Article III also states ". . . nor are such provisions intended to interfere with the ordinary use of such waters for domestic and sanitary purposes." It is problematical whether the latter statement refers only to the provision in art. III regarding boundary waters.

[27] Italics added.

[28] See generally, 36 CANADIAN BAR REV. 511 (1958).

[29] See W. Griffin, LEGAL ASPECTS OF THE USE OF SYSTEMS OF INTERNATIONAL WATERS, State Dept. Memo., Senate Doc. 118, 85th Cong., 2d Sess. (April 21, 1958), at p. 2, regarding a Canadian official's statements concerning the application of this provision of the Treaty to the Columbia River. An article by Mr. Griffin on the history of the treaty, said to be based primarily upon the above State Department memo, appears in 37 U. DETROIT L. J. 76-95.

United States courts (including state courts) and the Canadian courts are open to foreigners.[30]

Applied to the Chicago diversion problem, this argument may lose force because of Article II's exclusion of "existing cases,"[31] as the diversion was in progress at the date of the Treaty. But, no court case has yet been instituted by Canada's citizens or its government. Hence, it might apply to later court cases. And, even if existing cases are not limited to *court* cases, the article might apply to substantial increases in the Chicago diversion above that which existed in 1909.[32]

In any event, the remedy of injunction apparently would not be available under the terms of this treaty provision since it uses the term "legal remedies." While this would include suits for damages, it apparently excludes the "equitable" remedy of injunction.[33]

Although the Treaty states that Lake Michigan is not a boundary water for purposes of the Treaty, it at least connects with and may affect boundary waters, and Canada may have retained her international-law rights at least to protest a diversion of that navigable water.[34] It may be noted that at the end of Article II described above, the Treaty states:

> It is understood, however, that neither of the High Contracting Parties intends by the foregoing provision to surrender any right, which it may have, to object to any interference with or diversions of waters on the other side of the boundary, the effect of which would be productive of material injury to the navigation interests on its own side of the boundary.[35]

No cases seem to have been raised to test the propositions described above, and arguments both for and against such propositions have been

[30] See Beale, *The Jurisdiction of Courts over Foreigners,* 26 HARVARD L. REV. 283, 288 (1913); U. S. CONST., art. III, § 2.

[31] The term "existing cases" may have meant existing diversions, etc., or it might be interpreted to mean only cases already in the courts.

[32] But for the view that Secretary of State Elihu Root, who negotiated the Treaty for the United States, thought it excluded the Chicago diversion, see 30 MARQUETTE L. REV. 228, 251 (1947).

[33] See Griffin, *op. cit. supra* note 29, at p. 2; CANADIAN BAR REV. 511, 516-17, 528. The extent to which any such right to damages or other relief might be limited because the diversion had been authorized by a federal agency, or was performed by it or some state or local government, is problematical.

[34] See 37 CANADIAN BAR REV. 313, 420, 425 (1959).

[35] It may be noted that in a State Dept. Memo. in 1958, Article II was interpreted to mean that the use of non-boundary waters in each country is not subject to the consent of the other, but is subject to applicable principles of customary international law "except that, neither country may assert through diplomatic channels, on behalf of private parties sustaining injury in its territory, the international legal responsibility of the other country if there is available to them compensation under the law of the latter country." Griffin, *op. cit. supra* note 29, at p. 62.

With respect to difficulties in interpreting Article II, see 36 CANADIAN BAR REV. 521 (1958).

For another discussion of Article II, said to be a pivotal issue in negotiating the Treaty, see Q. BLOOMFIELD AND G. FITZGERALD, BOUNDARY WATERS PROBLEMS OF CANADA AND THE UNITED STATES (1958), at p. 13.

advanced.[36] Canada had not yet referred the matter of the Chicago diversion to the International Joint Commission in 1962, but it had registered protests with the U.S. Department of State regarding proposals for increasing the diversion.[37]

Both the United States and Canada have accepted the compulsory jurisdiction of the International Court of Justice. But the United States has reserved those disputes regarding "matters which are essentially within the domestic jurisdiction of the United States of America, as determined by the United States of America." The Canadian acceptance of compulsory jurisdiction of the International Court of Justice has no such restriction.[38] To this extent, certain activities or problems arising in Illinois could become the subject of adjudication by the International Court of Justice and the application of international-law principles as that court might determine them. By 1963, no such actions had occurred.

With respect to which principles of international law may be applied, it may be noted that in 1895 Attorney General Judson Harmon expressed an opinion concerning diversions of waters from the Rio Grande River in the United States, which allegedly caused damage to Mexican citizens.[39] His opinion was, "The fundamental principle of international law is the absolute sovereignty of every nation, as against all others, within its own territory." He added that "all exceptions, therefore, to the full and complete power of a nation within its own territories must be traced up to the consent of the nation itself."[40] He indicated that, in addition to entering into treaties, a nation might voluntarily observe acts of "comity" toward another nation from considerations of courtesy, convenience, and the like.

However, in a State Department memorandum in 1958 (which was

[36] See 37 CANADIAN BAR REV. 392, 444 (1959).

[37] A 1959 Canadian *aide memoire* expressed the opinion that proposed federal legislation to allow additional diversion would adversely affect navigation and power development, and would be incompatible with the mutual St. Lawrence Seaway project and the Niagara Treaty of 1850, designed to improve and facilitate such development. See *Hearings before the House Committee Public Works,* 86th Cong., 1st Sess. (1959), pp. 304-5.

Canadian counsel appeared before the Secretary of War in 1912 to argue against the application for an increased flow by the Chicago Sanitary District. See 37 CANADIAN BAR REV. 424-425, which also states that in 1913 Canada protested the diversion on the grounds it interfered with her navigation rights under international law and the Ashburn-Webster Treaty of 1842. See also p. 420.

In the Chicago diversion litigation, the U.S. Supreme Court said that the Federal government "has a standing in this suit not only to remove obstruction to interstate and foreign commerce, the main ground . . . but also to carry out treaty obligations to a foreign power bordering upon some of the Lakes concerned . . ." *Sanitary District v. United States,* 266 U.S. 405, 425 (1924). It then referred to the provisions regarding boundary waters in Article III. But the cited provisions relate solely to uses, obstructions, or diversions of boundary waters, which by their definition exclude Lake Michigan.

[38] See 1960-61 INT'L COURT OF JUSTICE YRBK., pp. 198, 217.

[39] 21 OPS. ATT'Y GEN. 274, 281-3 (1895).

[40] *Id.,* quoting Chief Justice Marshall in Schooner Exch. v. McFaddon, 7 Cranch 116, 136; 2 U.S. 478 (1812).

prompted by concern over possible diversions of waters of the Columbia-Kootenay River System in Canadian territory that might injuriously affect United States citizens, and vice versa), it was stated that, while each nation has exclusive jurisdiction or control within its boundaries, the view that it would have no legal obligations to its coriparians with regard to a system of international waters until it had entered into a treaty with them is a false view. The memorandum stated that it is "demonstrated by the fact of international relations that sovereignty is restricted by principles accepted as customary international law, in accordance with which the International Court of Justice, or other international tribunal, would pronounce judgment."[41] The writer added that "It is accepted legal doctrine that the existence of customary rules of international law, i.e., of practices accepted as law, may be inferred from similar provisions in a number of treaties." After reviewing a number of treaties and other sources, the writer concluded:

It is believed that an international tribunal would deduce the applicable principles of international law to be along the following lines:

1. A riparian has the sovereign right to make maximum use of the part of a system of international waters within its jurisdiction, consistent with the corresponding right of each coriparian . . .

2. Riparians are entitled to share in the use and benefits of a system of international waters on a just and reasonable basis. In determining what is just and reasonable account is to be taken of rights arising out of —

a. agreements,
b. judgments and awards, and
c. established lawful and beneficial uses;

and of other considerations such as —

d. the development of the system that has already taken place and the possible future development, in the light of what is reasonable use of the water by each riparian;
e. the extent of the dependence of each riparian upon the waters in question; and
f. comparison of the economic and social gains accruing, from the various possible uses of the waters in question, to each riparian and to the entire area dependent upon the waters in question. . . .

3. (a) A riparian which proposes to make, or allow, a change in the existing regime of a system of international waters which could interfere with the realization by a coriparian of its right to share on a just and reasonable basis in the use and benefits of the system, is under a duty to give the coriparian an opportunity to object.

(b) If the coriparian, in good faith, objects and demonstrates its willingness to reach a prompt and just solution by the pacific means envisaged in Article 33 (1) of the Charter of the United Nations, a riparian is under a duty to refrain from making, or allowing, such a change, pending agreement or other solution.

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[41] Griffin, *op. cit. supra* note 29, at p. 62 *et seq.* References to the Harmon Doctrine appear on pp. 9, 60, and elsewhere.

Mr. Griffin added:

Riparians are also doubtlessly motivated to seek agreement because of recognition that under the international law of responsibility of states, a riparian which alters the character of the bed or flow of a system of international waters is responsible if injury is thereby caused to a coriparian. The concept of injury in international law is very complex; and it is difficult to set an absolute limit beyond which the injury is sufficient to provide legitimate grounds for opposing action taken by a riparian. Moreover, responsibility means a duty to make reparation for an injury; and reparation may consist of pecuniary or specific restitution, specific performance, monetary damages, or some combination of these. It might be a vast responsibility to make pecuniary reparation or restore the status quo. Consequently, it is very important that riparians come to an agreement in advance, so that such responsibility would not arise. Their agreement upon the distinction of benefits is in effect an indemnification in advance.

In its 1958 conference at New York University, the International Law Association resolved to adopt the report of its Committee on the Uses of the Water of International Rivers. The report included the following "Agreed Principles of International Law."

1. A system of rivers and lakes in a drainage basin should be treated as an integrated whole (and not piece-meal).[42]

2. Except as otherwise provided by treaty or other instruments or customs binding upon the parties, each co-riparian State is entitled to a reasonable and equitable share in the beneficial uses of the waters of the drainage basin. What amounts to a reasonable and equitable share is a question to be determined in the light of all the relevant factors in each particular case.[43]

3. Co-riparian States are under a duty to respect the legal rights of each co-riparian State in the drainage basin.

4. The duty of a riparian State to respect the legal rights of a co-riparian State includes the duty to prevent others, for whose acts it is responsible under international law, from violating the legal rights of the other co-riparian States.[44]

Water Pollution

The Federal Water Pollution Control Act provides that the federal government may take action to secure the abatement of the pollution of interstate waters in certain circumstances. The Act is administered under the supervision of the Secretary of Health, Education, and Welfare by the

[42] A comment on this principle was as follows: ". . . Until now international law has for the most part been concerned with surface waters although there are some precedents having to do with underground waters. It may be necessary to consider the interdependence of all hydrological and demographic features of a drainage basin."

[43] This statement seems similar to the United States Supreme Court doctrine of equitable apportionment of benefits in interstate-waters conflicts, discussed earlier.

[44] See also the resolutions adopted by the 10th Conf. of the Inter-American Bar Ass'n., Buenos Aires, Nov. 19, 1957, reproduced in Griffin, *op. cit. supra* note 29, at p. 89.

Public Health Service, whose Division of Water Policy and Pollution Control includes an Enforcement Branch.

The Act provides that whenever the Secretary, "on the basis of reports, surveys, or studies, has reason to believe" that the pollution of interstate waters is occurring,[1] or if requested by a governor or state water pollution control agency, "he shall give formal notification" to the state water pollution control agency (and any interstate agency) of the state or states in which the pollution is discharged and shall call a conference of the agencies in the respective states. After such conference, if he believes that the health or welfare of persons in another state is endangered, and effective progress is not being made to abate such pollution in the state in which the pollution is discharged, he shall recommend that necessary remedial action be taken by the appropriate water pollution control agency. If appropriate steps are not taken within a specified time, the Secretary is to call a public hearing to be held before an appointed hearing board in or near the area in which pollution originates.[2] The board shall determine whether appropriate steps have been taken to abate the pollution, and, if not, it may recommend reasonable and equitable measures to be carried out. If measures reasonably calculated to abate the pollution are not carried out within an additional specified time after proper notice to the persons discharging the polluting material and the appropriate state agency or agencies, the Secretary (with the written consent of appropriate agencies or officials in the state in which the pollution is discharged or at the request of appropriate agencies or officials in any of the states affected thereby) may request the U.S. Attorney General to bring a suit on behalf of the United States to secure abatement of the pollution.

Two conferences have been held under this legislation regarding pollution of interstate waters of the Mississippi River, one in St. Louis in 1958, and the other at Clinton, Iowa, in 1962. The nature of the pollution problems involved, the recommendations made, and remedial measures taken are described in Appendix O.

The Federal Water Pollution Control Act was amended in 1961, to substantially extend the jurisdiction of the federal government under its terms.[3] The amended legislation provides that the Department of Health, Education, and Welfare also may act on requests from the governor of a

[1] Interstate waters are defined for this purpose as "all rivers, lakes, and other waters that flow across, or form a part of, state boundaries, including coastal water." The pollution of interstate waters in or adjacent to any state or states (whether the polluting material is discharged directly into such waters or reaches such waters after discharge into a tributary thereof) which endangers the health or welfare of persons in another state shall be subject to abatement as provided in the Act.

[2] This board shall include five or more persons, a majority of whom shall not be officers or employees of the Department. One member shall represent the Department of Commerce, and each state in which the pollution originates, or claiming to be adversely affected, shall be entitled to select one member.

[3] 62 STAT. 1155 (1948); 70 STAT. 498 (1956); 75 STAT. 204 (1961); 33 U.S.C.A. §§ 466 to 466k.

state with reference to the pollution of interstate *or navigable waters within the state* which endangers the health or welfare of persons *only in the requesting state.*[4] Such action may be taken in regard to pollution of interstate or navigable waters reaching such waters after discharge into a tributary of such waters. The procedures for conferences and hearings are similar to those described above. If insufficient action is taken by the polluter within a specified time to carry out the resulting recommendations, the state attorney general, with the consent of the governor, may be requested to bring a suit on behalf of the United States to secure abatement of the pollution.

The amended Act extends pollution control jurisdiction from "interstate" waters to "navigable" waters and provides a remedy to states, state agencies, and municipalities in the form of a request procedure to the federal government, not only in cases where pollution discharge crosses state lines, but also in some cases where there is pollution affecting legitimate uses of the water of any navigable stream, whether or not there is interstate pollution, as described earlier under Federal Matters.

The exclusive and original jurisdiction of the United States Supreme Court applies to pollution questions between states, as well as to other questions. An early case of interstate pollution before the Supreme Court was brought by Missouri to enjoin Illinois from discharging sewage ultimately into the Mississippi River. Missouri urged that the Mississippi River water was made unfit to drink and was contaminated with typhoid and other disease germs as a result of the discharge of untreated sewage into waters pouring into the Mississippi River by the Sanitary District of Chicago and other municipalities upstream from St. Louis. In 1901 the Court upheld Missouri's right to bring the action.[5]

In 1906 the Court decided the case on its merits.[6] The Court emphasized that in this type of action between states, the matter must be of serious magnitude before the Court would presume to intervene. It pointed out that matters which would warrant resort to equity by one citizen against another in the same jurisdiction will not necessarily equally warrant an interference by the Court in the actions of one state at the insistence of another. It also pointed out that Missouri was permitting its own cities above St. Louis to dump sewage into the Mississippi and that Illinois, especially the Sanitary District of Chicago, was improving the conditions by flushing this sewage with large quantities of clear Lake Michigan water. The Court concluded that Missouri had not made out a case of sufficiently serious magnitude and so dismissed its suit.[7]

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[4] See *Id.* § 466g.

[5] Missouri v. Illinois, 180 U.S. 208 (1901).

[6] 200 U.S. 496 (1906).

[7] It is interesting to note that Missouri, on the other hand, was in favor of the Chicago diversion in the later suit brought by Wisconsin and other states because it felt it improved the navigability of the Mississippi River. See Wisconsin v. Illinois, 278 U.S. 367, 397 (1929), where Missouri supported Illinois. See the earlier discussion of the Chicago diversion.

In another interstate pollution case between New York and New Jersey, the Court also dismissed the case and pointed out that the problem was more likely to be wisely solved by cooperative study, conference, and mutual concession, than by proceedings in any court, however constituted.[8] However, New Jersey obtained a decree in 1933 against New York City to control the dumping of garbage into the Atlantic Ocean.[9]

The success of states in interstate water pollution cases before the United States Supreme Court has not been particularly noteworthy. In general, the states have found that, in line with the suggestions of the Supreme Court, cooperative action and agreement through compact have been a more feasible method of settling pollution problems. Compacts relating to pollution to which Illinois is a party have been discussed earlier.

The International Joint Commission, discussed earlier, was not given pollution control power for boundary or tributary waters, although the Boundary Waters Treaty of 1909 did contain directives to investigate pollution in certain boundary waters, to make requests for abatement, and to report refusals to abate. This section does not affect Illinois since Lake Michigan is not a boundary water. It could, however, serve to protect Illinois in the event Lake Michigan were threatened with pollution from boundary waters, since Article IV states, "it is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of water or property on the other." The question, of course, arises as to whether this provision would apply to the pollution of tributaries which then flow into boundary waters and pollute them, and whether it extends to pollution by states and individuals as well as to pollution by the federal government.

No pollution cases have been located which decide these points. It does seem that, since the terms of the provision state, without limitation, that boundary waters, and waters flowing across boundaries, shall not be polluted, it applies to pollution in tributaries that then flow into or across boundary waters, as well as to pollution of the boundary waters directly. Furthermore, it would seem that the language of the provision is sufficiently comprehensive to include pollution of such waters, not only by the governments of the United States and Canada, but also by state governments and their agencies or individuals within the states.[10]

The Northwest Ordinance

Article IV of the Ordinance of 1787, enacted by the Congress of the Confederation relating to the Northwest Territory, provided that

> The navigable waters leading into the Mississippi and Saint Lawrence, and the carrying places between the same, shall be common highways, and forever free, as well to the inhabitants of the said territory as to the citizens of the United States, and those of any other States that may be admitted into the Confederacy, without any tax, impost, or duty therefor.

[8] New York v. New Jersey, 256 U.S. 296, at 313 (1921).
[9] New Jersey v. City of New York, 290 U.S. 237 (1933).
[10] See discussion of this matter under The Chicago Diversion, p. 269.

The Preamble of the Ordinance declared that it "shall be considered as articles of compact, between the original States and the people and States in the said territory. . . " This was continued in force by the first United States Congress.[1]

In a case decided in 1921 involving the Des Plaines River in Illinois the United States Supreme Court said with respect to the Ordinance and its provision regarding navigable waters:[2]

An Act to enable the people of Illinois to form a state government, approved April 18, 1818, c. 67, 3 Stat. 428, contained a proviso (§4, p. 430) that such government should not be repugnant to the Ordinance of 1787.[3] The state constitution declared its purpose to be consistent with the Ordinance, and the resolution of Congress declaring admission of the State into the Union (December 3, 1818, 3 Stat. 536) acknowledged that the constitution and state government were "in conformity to the principles of the articles of compact" in the Ordinance of 1787.[4]

There can be no doubt that the waters of the Chicago-Desplaines-Illinois route "and the carrying places between the same" constituted one of the routes of commerce intended by the Ordinance, and the subsequent acts referred to, to be maintained as common highways. It did not make them navigable in law unless they were navigable in fact, but declared the public rights therein so far as they were navigable in fact . . .

To the extent that it pertained to internal affairs, the Ordinance of 1787 — notwithstanding its contractual form — was no more than a regulation of territory belonging to the United States, and was superseded by the admission of the State of Illinois into the Union "on an equal footing with the original States in all respects whatever." (citing cases) But, so far as it established public rights of highway in navigable waters capable of bearing commerce from State to State, it did not regulate internal affairs alone, and was no more capable of repeal by one of the States than any other regulation of interstate commerce enacted by the Congress . . .[5]

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[1] See 1 STAT. 50 (1789).

[2] Economy Light and Power Co. v. United States, 256 U.S. 113, 119 (1921). As noted by the Court, the first Illinois Constitution did refer to the Ordinance, although the later Constitutions of 1848 and 1870 apparently did not.

The first (1818) constitution provided that the people of the Illinois Territory, having the right of admission into the Union, consistent with the United States Constitution, *the Ordinance of 1787*, and the federal enabling act of 1818, did thereby agree to adopt the constitution.

[3] But it also provided that "said state, when formed, shall be admitted into the union upon the same footing with the original states, in all respects whatever."

[4] The Court also said that a relevant 1804 act providing for the disposal of public lands (2 STAT. 277) declared that all navigable waters within the territory "shall be deemed to be and remain public highways." A similar provision in a 1796 act was cited and relied on in Braxon v. Brassler, 64 Ill. 488, 491 (1872). (The May 18 act was erroneously cited as May 17.) See 43 U.S.C.A. § 931 regarding the quoted provision, which also is discussed in Shively v. Bowlby, 152 U.S. 1, 32-33, as noted earlier under Federal Law Regarding Ownership of Beds, p. 82.

[5] The Court added that: "Nothing inconsistent with this was decided in Escanaba Trans. Co. v. Chicago, 107 U.S. 678, 688-689 (and other cases cited). Those cases simply hold, in effect, that a State formed out of a part of the Northwest Territory

(footnote 5 continued)
has the same power to regulate navigable waters within its borders that is possessed by other States of the Union . . ."

In the *Escanaba* case the Court had said, at 107 U.S. 686-689:
". . . although the act of April 18, 1818, c. 67, enabling the people of Illinois Territory to form a constitution and State government, and the resolution of Congress of Dec. 3, 1818, declaring the admission of the State into the Union, refer to the principles of the ordinance according to which the constitution was to be formed, its provisions could not control the authority and powers of the State after her admission. Whatever the limitation upon her powers as a government whilst in a territorial condition, whether from the ordinance of 1787 or the legislation of Congress, it ceased to have any operative force, except as voluntarily adopted by her, after she became a State of the Union. On her admission she at once became entitled to and possessed of all the rights of dominion and sovereignty which belonged to the original States. She was admitted, and could be admitted, only on the same footing with them. The language of the resolution admitting her is 'on an equal footing with the original States in all respects whatever.' 3 STAT. 536."

Notwithstanding the assertion in the *Economy Light and Power Co.* case that the *Escanaba* and other cases referred to the Ordinance only in connection with internal matters of a state, the *Escanaba* case involved a complaint by a Michigan company operating steamboats between Michigan and Chicago. It complained that the City of Chicago's regulations regarding the operation of bridges across the Chicago River unduly restricted its boats. The Court, after making the statements quoted above, said that even if the Ordinance were applicable it would not prohibit the actions complained of.

In another case, residents of Oregon sought to enjoin the erection of a bridge by an Oregon corporation across a navigable river in Oregon. Although the bridge was authorized by the Oregon legislature, they argued that it would violate a provision of the act admitting Oregon into the Union that was borrowed (with some modification) from the Northwest Ordinance of 1787. The Court said that the Ordinance was no longer in force in the states in the Northwest Territory so as to limit their legislative powers as compared with the original states, except perhaps to the extent its provisions were included in the Act admitting a state to the Union. In any event, it said that art. IV of the Ordinance does not refer to physical obstructions but to political regulations which would hamper freedom of commerce and it would only prohibit the imposition of duties for the use of navigation and any discrimination denying to citizens of other states the equal right to such use. It said this view had been expressed in its earlier decision in Cardwell v. American Bridge Company, 113 U.S. 205 (1885), and added that: "In Huse v. Glover, 119 U.S. 543 (1886), where a portion of the Illinois River had been improved by the State of Illinois, by the erection of locks in the river, and a toll was charged for passing through the same, it was held . . . that whilst the ordinance of 1787 was no longer in force in Illinois [in that case the Court referred to the above quotation from the *Escanaba* case in this regard — authors' insertion] yet, if it were, the construction given to the clause in the *Cardwell* case was approved, and the following observation was made: 'as thus construed the clause would prevent any exclusive use of the navigable waters of the State — a possible farming out of the privilege of navigating them to particular individuals, classes, or corporations, or by vessels of a particular character.' It also was held that the exaction of tolls for passage through locks as a compensation for the use of the artificial facilities constructed, was not an impost upon the navigation of the stream." Williamette Iron Bridge Co. v. Hatch, 125 U.S. 1, 9-12 (1887). (In further noting that art. IV of the Ordinance embraced carrying places between the rivers as well as the rivers themselves, it said "it cannot be supposed that those carrying places were intended to be always kept up as such.")

In a case subsequent to the *Economy Light and Power Co.* case, *supra,* also arising from Illinois but decided by a lower federal court, Congress had by statute relinquished its control over certain parts of the Chicago River to the State of Illi-

As the Court indicated that the bill of complaint in this case[6] was being founded on the Act of 1899, 30 STAT. 1151 (which is a general statute that is referred to earlier under Federal Matters in connection with the jurisdiction of the Corps of Engineers) its statements regarding the Ordinance appear to have been largely incidental. Nevertheless, such statements appear to have kept alive the question of whether the Ordinance may still have some special significance as an element of federal law regarding federal jurisdiction and interstate matters.[7]

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nois, and state legislation provided that after such federal relinquishment the City of Chicago could fill in such parts of the watercourse (citing 42 STAT. 1323 (1923); ILL. LAWS 1927, p. 250). It was contended that the navigable waters clause in the Ordinance prohibits such relinquishment by the federal and state governments. But the court said "We cannot ascribe any such potency to this clause. It is not a limitation upon the powers of Congress acting under the Constitution . . . nor is it a limitation upon the power of territory which afterwards became a state." The court quoted Escanaba Co. v. Chicago, *supra,* to the effect that the Ordinance ceased to have any operative force in a state after statehood except as voluntarily adopted by it, noting that this case had been cited approvingly in the *Economy Light and Power Co.* case and in Huse v. Glover, *supra.* Leitch v. City of Chicago, 41 F. 2d. 728 (C.C.A. 7th, 1930), *cert. denied,* 282 U.S. 891 (1930).

In an early 1844 case, the Supreme Court said that the Ordinance was a "mere regulation of commerce" and under the commerce clause of the Constitution, Congress could impose the same restrictions in states subject to it as in other states. In any event, as a mere regulation of commerce, it held it had no controlling effect on the question of the right of eminent domain over the shores and soils under navigable waters in Alabama. Pollard's Lessee v. Hagan, 3 How. 212 (1844). Later, in Strader v. Graham, 10 How. 82 (1850), although not dealing expressly with the navigable waters provision of the Ordinance, the Court said that the Ordinance ceased to have any force in a state upon its admission to statehood except as adopted by it, noting that otherwise it might be on an inferior basis compared with the original states. The Court held that even if it were in force in Ohio, as alleged, it would not operate as a limitation upon the laws of Kentucky.

In Huse v. Glover, *supra,* the Court also discussed and construed Art. 1, § 10, of the U.S. Constitution which provides that no state shall, without the consent of Congress "lay any duty of tonnage."

[6] In which the federal government requested an injunction to restrain the defendant company from constructing a dam in the river without approval.

[7] For relevant discussions of the Ordinance, see 54 A.L.R. 438 (1928); 11 ILL. L. REV. 540, 541-545 (1916-17); F. PHILBRICK, THE LAWS OF THE ILLINOIS TERRITORY, 1809-1818 (1950), pp. ccii, ccxiii to ccxx, clxvii; note by R. Effland, in 1939 WIS. L. REV. 547; Waite, *Public Rights to Use and Have Access to Navigable Waters,* 1958 WIS. L. REV. 335, 364; Waite, *The Dilemma of Water Recreation and a Suggested Solution,* 1958 WIS. L. REV. 542, 552. The Ordinance sometimes has been looked to by the courts of some of the neighboring states as having some special significance. This and related matters have been investigated by the research on water laws in Minnesota, Wisconsin, Indiana, and Ohio, conducted by the University of Wisconsin for the U.S. Dept. Agr.

In an Illinois case in 1938 concerning the Chicago River, the Court said that "the provisions of the Ordinance of 1787 have no application, since, upon Illinois becoming a State, it forthwith became entitled to and possessed all the right to dominion and sovereignty which belonged to the original States. Escanaba Trans. Co. v. Chicago, 107 U.S. 678 [discussed above]." Leitch v. Sanitary Dist. of Chicago, 369 Ill. 469, 475 (1938). See also People v. Thompson, 155 Ill. 451, 472-474 (1895) indicating that the Ordinance has no force in Illinois except so far as its principles are embodied in the

(footnote 7 continued)
state constitution or laws, citing earlier federal cases. This was cited approvingly in Dixon v. People, 168 Ill. 179, 195 (1897).

But in a case in 1848 (People v. St. Louis, 10 Ill. 351, 369-370) the Illinois court referred to the Ordinance of 1787 with respect to the Mississippi River. Among other things, it said: "The ordinance itself does not declare the Mississippi river to be a common highway and forever free to all the citizens of the Union, but the navigable waters leading into it." This common right of the free navigation of that river was considered as already existing, and the extent and nature of that right may be understood from the provisions made in relation to the tributaries, as all were undoubtedly intended to be placed on the same footing. There were two prominent restrictions upon the states to be formed; one was that these rivers should never be closed against the citizens of other states, and the other that no tax, impost or duty should be exacted of them for the navigation of these highways. Where no material or substantial obstructions are created by the states, within whose limits those rivers run, the citizens of the other states can not complain. The substance of the right secured is that of free transit.

The Ordinance was again referred to in Mississippi River Bridge Co. v. Lonergan, 91 Ill. 508, 515 (1879) "to determine the object to be attained by the guaranty that the navigation of the [Mississippi] river should remain forever free," noting that in the *City of St. Louis* case it had said "the object to be attained was the promotion of commerce, and the rights secured are purely commercial."

The latter two early Illinois cases did not cite any federal court decisions in this regard.

In a later case in 1923 (Du Pont v. Miller, 310 Ill. 140, 141 N.E. 423, 425) the Illinois court said: "By the Ordinance of 1787 establishing the Northwest territory, the state of Illinois has full and complete jurisdiction over all navigable waters within its borders subject only to the power of the federal government to enact such legislation and make such regulations as relate to interstate commerce. Economy Light and Power Co. v. United States, 256 U.S. 113 . . . Cummings v. Chicago, 188 U.S. 410 . . ." The court then proceeded to determine whether the water in question was navigable, without further referring to the Ordinance. The first federal case (the *Economy Light and Power* case) it cited has been described above. The *Cummings* case does not appear to have referred to the Ordinance.

Thus, it appears that the statements in both the Illinois and federal court cases are in a rather confused state regarding the Ordinance.

APPENDIX A

PUBLIC STREAMS AND LAKES IN ILLINOIS

Following is a list of public streams and lakes in Illinois as recorded in the Department of Public Works and Buildings, Division of Waterways. The list purports to show all public streams and lakes under the jurisdiction of the Department for purposes of the act for regulation of rivers, streams, and lakes[1] and was prepared under a requirement in this act.[2] The list also shows streams and lakes that have been meandered, lakes that are considered to be navigable even though not meandered, and the counties in which the lakes are located. It apparently does not include bodies of water on the borders of the state.

The list was prepared in 1915 and revised in 1916 by F. B. Foote, then junior engineer for the Rivers and Lakes Commission (replaced by the Department of Public Works and Buildings, Division of Waterways). The list was being used by the Division in 1963, but further compilation of meandered lakes had been made,[3] and departures from the list have sometimes been made on the basis of court decisions, opinions of the Attorney General, new evidence, or for other reasons.[4]

It is problematical how much weight the courts may give to this list in considering whether a particular stream, river, or lake, or portion thereof, is meandered or navigable or otherwise may be considered a public body of water.

Public Streams

Bay Creek, Calhoun County; meandered 8 miles above Hamburg Bay
Big Muddy below Ziegler
Cache River
Calumet River
Crooked Creek (tributary to Illinois River) below Colmar
Des Plaines River; meandered to Riverside — 87.69 miles
Embarrass River below Hugo
Fox River; meandered
Galena River
Green River below Amboy
Illinois River; meandered
Iroquois River below Watseka
Kankakee River; meandered to near Custer Park — 50 miles
Kaskaskia River below Chesterville
Little Wabash River below Effingham
Mackinaw River below Mackinaw
Maucoupin Creek below Carlinville; meandered
Nippersink Creek

[1] Ill. Rev. Stat., c. 19, §§ 52-78.

[2] See especially *Id.* §§ 52, 53, 62, and 67.

[3] See Meandered Lakes in Illinois (1962), discussed in notes 2 and 3, pp. 77 and 78.

[4] For example, whereas the Fox River is listed as a public stream, it was treated as a nonpublic stream at the location in question by the Attorney General in a letter opinion addressed to E. A. Rosenstone, Director of the Department, July 15, 1954, at p. 6. Also see, regarding the Department's jurisdiction over the Sangamon River, Springfield v. North Fork Outlet Drainage Dist., 249 Ill. App. 133, 142 (1928); Central Ill. Public Service Co. v. Vollentine, 319 Ill. 66, 68 (1925); Ops. Att'y Gen., 1955, at p. 191.

Otter Creek; meandered
Pecatonica River
Rock River; meandered
Saline River below Equality
Salt Creek below Lincoln
Sangamon River below Taylorville; meandered to near Springfield — 203 miles
Sangamon, South Fork, below Taylorville
Shoal Creek below Greenville
Skillet Fork River below Greendale
Spoon River below London Mills; meandered 23.4 miles
Vermilion (tributary to Illinois River) below Pontiac
Vermilion (tributary to Wabash River) below Homer

Public Lakes

Lake	*County*	*Comment*
Slough near Otter Creek	Jersey	Meandered
Macoupin Slough	Greene	Meandered
Slough near Van Seson Island	Greene	Meandered
Slough near Mile 42 (just below Pearl)	Greene	Falls within river meander line
Slough at Mile 45 (across river from Van Seson Island)	Pike	Included in river meander line
Slough near Valley City	Pike	Meandered
Naples or Shelly Lake	Pike	Not meandered but could probably be found navigable
Meredosia Lake	Scott	Meandered
Muscooten Bay, including Woods Slough, etc., near Beardstown	Cass	Not meandered; plainly navigable
Sangamon Lake	Cass	Not meandered; plainly navigable
Stewart Lake	Mason	Not meandered; large lake, deep inlet
Snicarte Slough	Mason	Not meandered; plainly navigable
Moscow Lake	Mason	Not meandered; plainly navigable
Bath Lake	Mason	Not meandered; apparently navigable
Matanzas Bay	Mason	Meandered
Cooks Harbor at Havana	Mason	Included in river meander line
Siebs Lake	Fulton	Partly included in river meander line
Quiver Lake and Dog Fish Lake	Mason	Meandered
Liverpool Lake	Mason	Meandered
McGill Lake, Courtwright Slough, Goose Lake	Mason	Not meandered but used for navigation
Johnson Lake	Fulton	Not meandered but navigable at ordinary stages
Slough just above Liverpool and Round Lake (locally known as Buckhart Lake, old outlet of Buckhart Creek)	Fulton	Navigable for motor boats at low water
Beebee Lake and Goose Slough	Fulton	Not meandered; formerly navigable at fairly good stage
Grass Lake	Fulton	Navigable for small boats at ordinary stages
Mud and Clear Lake	Mason	Meandered and navigable

Spring Lake and Saiwell Lake	Tazewell	Meandered
Pekin Lake	Tazewell	Meandered
Larish Lake	Tazewell	Not meandered; navigable for small boats at ordinary stages
Kingston Lake	Peoria	Navigable; partly enclosed by river meander lines
Peoria Lake	Peoria	Meandered
Willow Gap Bay	Woodford	Enclosed by river meander line
Whitman Lake	Marshall	Not meandered; clearly navigable at ordinary stages
Babbs Slough	Marshall	Partly enclosed by river meander line; clearly navigable at ordinary stages
Sawyer Slough	Marshall	Not meandered; navigable at ordinary stages
Gar Lake	Marshall	Meandered
Fisher Slough	Marshall	Not meandered; clearly navigable; part of it serves as river channel
Sawmill Lake	Putnam	Not meandered; navigable at all stages since construction of Henry Dam
Meridian Slough	Marshall	Not meandered; navigable at all ordinary stages
Mud Lake (at Henry)	Marshall	Not meandered; navigable at practically all stages since construction of Henry Dam
Big Mud Lake and Senachwine	Putnam	Not meandered; clearly navigable
Long Slough and French Slough	Putnam	Not meandered; navigable for small boats at all ordinary stages
Lake Dopue	Bureau	Not meandered; order entered and case appealed
Lyons Lake	Putnam	Not meandered; navigable
Huse Slough and Pond	La Salle	Meandered and navigable
Huse Lake	La Salle	Not meandered; navigable at present ordinary stages
Bald Eagle Lake	Mercer	Meandered; outlet to Sweet Lake to Mississippi River
Benton Bay and Campbell Slough	Henderson	Meandered; outlet to Mississippi River
Calumet Lake	Cook	Meandered; outlet to Calumet River
Cat Tail Slough	Whiteside	Meandered; outlet to Mississippi River
Channel Lake	McHenry	Meandered; connected with Lake Marie
Crystal Lake	McHenry	Meandered; inlet to Fox River
Frentress Lake	Jo Daviess	Meandered; outlet to Mississippi River
Fox Lake	McHenry	Meandered
Griswold Lake	McHenry	Meandered; inlet to Fox River
Grass Lake	McHenry	Meandered; part of Fox River
Hamburg Bay	Calhoun	Meandered; enlarged mouth of Bay Creek; tributary to Mississippi River
Horse Shoe Lake	Alexander	Meandered; inlet to Cache River
Marias D'Osier	Whiteside and Rock Island	Meandered; outlet to Mississippi River
Lake Marie	McHenry	Meandered; connects with Fox River then Grass Lake
Mud Lake	Mercer	Meandered; outlet to Mississippi River
Pistakee Lake	McHenry	Meandered; connects with Fox River
Quincy Bay	Adams	Partly meandered; outlet to Mississippi River

Savanna Bay	Carroll	Meandered; enlarged mouth of Brush Creek; outlet to Mississippi River
Slough opposite Clinton, Iowa	Carroll	Meandered; outlet to Mississippi River
Slough above Keithsburg	Mercer	Meandered; inlet and outlet to Mississippi River
Spring Lake	Mercer	Meandered; outlet to Mississippi River
Sturgeon Bay Dog Lake Sweed Lake	Mercer	Meandered; inlet and outlet to Mississippi River
Swan Lake	Mercer	Partly meandered; outlet through Sweed Lake to Mississippi River
Wolf Lake and Hyde Lake	Cook	Meandered
Woods Lake	McHenry	Meandered

APPENDIX B

Summary of: People ex rel. the Sanitary Water Board v. Sycamore Preserve Works, Gen. No. 55-191 (De Kalb County Cir. Ct., Dec., 1956).

Defendant, a corn-canning company, allegedly allowed cannery wastes to pollute the Kishwaukee River on and before August 17, 1955, killing fish and other aquatic life therein. During the course of the trial, witnesses testified that: the defendant used water to wash sweet corn. This washing process dissolved a large amount of starch in the water, and the water also carried away a large amount of other organic corn-waste materials. The defendants used a six-inch pipe to carry the waste water to lagoons one mile away. This pipe had been used since purchased by the company over 17 years previously and had never been treated with a rust preventive or painted. It was partially underground and partially exposed, and the exposed portion ran inside Martin's Ditch, a small stream that ran into the Kishwaukee River. On August 17, 1955, there were three different breaks in the pipe at or near the open ditch. These breaks were up to ½-inch in diameter. The cannery waste material was being pumped through the pipe under pressure and it escaped from these breaks in excess of 650 gallons per hour. It was at least four or five hours before defendant repaired the leaks.

In addition, the state sanitary engineer testified that 2,000 to 4,000 fish and 150,000 to 200,000 minnows were killed on August 18, 1955, in a two-mile area downstream from where Martin's Ditch entered the Kishwaukee. Of the fish, 90 percent were rough fish like carp and suckers and 10 percent game fish like bass and northerns. He further testified that, according to his field tests, the oxygen supply in the river water was too low for aquatic life; and that he took a number of water samples from the river to the state laboratory. A state laboratory chemist then testified that he made biochemical-oxygen-demand tests on these samples and that the results showed the water would not sustain fish life.

A state fish biologist testified that on August 19, 1955, he made shock tests on the Kishwaukee and found almost a complete kill of fish, that there were still many dead fish in the stream, that the rough fish were worth 10 cents each, game fish 25 cents each, and the minnows worth 2 cents each to commercial fishermen; that the value to the community, of fishermen coming there and increasing business, was more than $5 per day per fisherman; that it was his opinion that the cannery waste which escaped into the river may or could

have been the direct and proximate cause of the death of the fish because of oxygen depletion and resultant suffocation of the fish caused by the decomposition of the organic waste material (such process being an oxygen-consuming process).

The defendant's witnesses tended to show that the defendant repaired the leaks as soon as they had knowledge of them.

Plaintiff's action was based on Ill. Rev. Stat., c. 19, §§ 145.10 and 145.13 (b) which reads as follows:

§ 145:10 — No person shall throw, run, drain, or otherwise dispose into any of the waters of this state, or cause, permit, suffer to be thrown, run, drained, allow to seep or otherwise dispose into such waters, any organic or inorganic matter that shall cause pollution of such waters.

§ 145.13 (b) — Any person who violates any of the provisions of, or fails to perform any duty imposed by this Act, or who violates an order or other determination of the Board promulgated pursuant to this Act, and causes the death of fish or aquatic life shall, in addition to the other penalties provided by this Act, be liable to pay to the State an additional amount of money for fish or aquatic life destroyed; the Board after consultation with the Department of Conservation shall, through the Attorney General, bring an action against such person and recover the reasonable value of the fish or aquatic life destroyed by such pollution. Any money so recovered shall be placed in the Game and Fish Fund in the State Treasury.

The complaint asked for $5,000 damages. The jury returned a verdict for the plaintiff and awarded damages in the amount of $1,100, and the findings of the jury were accepted by the court.

APPENDIX C

RECENT ILLINOIS TRIAL COURT CASES ON WATER-USE RIGHTS

County and circuit court clerks, returning questionnaires sent from the College of Agriculture in September, 1956, and August, 1959, cited ten cases that contained material pertinent to a study of the legal aspects of water use in the state. The following table classifies these cases.

No.	Citation	Subject matter and outcome
1	*People ex rel. the Sanitary Water Board v. Sycamore Preserve Works,* Gen. No. 55-191 (De Kalb County Cir. Ct., Dec., 1956).	Complaint for $5,000 damages for pollution of river by a corn-canning company. Damages of $1,100 awarded. See description of case in Appendix B.
2	*People ex rel. Sanitary Water Board v. National Petro-Chemical Corp.,* Gen. No. 1286 (Douglas County Cir. Ct., 1954).	Complaint for injunction for pollution of river by industrial corporation. Injunction issued and complied with.
3	*Burt v. City of Flora,* Gen. No. No. 56-1028 (Clay County Cir. Ct., 1956).	Complaint for injunction and damages to farm resulting from pollution of creek by city sewer system. Injunction denied on ground that the city had complied with recommendations of Sanitary Water Board to eliminate the pollution. Complaint for damages was dismissed pursuant to stipulation by parties.

4	*People ex rel. Sanitary Water Board v. City of Gibson,* Chancery No. 3169 (Ford County Cir. Ct., 1952).	Complaint for injunction to stop city from discharging inadequately treated sewage into a creek. Injunction issued and complied with.
5	*Clem v. City of Paxton* C. L. original No. 9595 (Ford County Cir. Ct., 1940).	Complaint for injunction and damages to farm caused by discharge of sewage into stream. Damages of $2,750 awarded. Injunction issued and complied with.
6	*Hartin v. Crackel,* Gen. No. 55-2015 (Edwards County Cir. Ct., 1955).	Complaint for injunction to restrain erection and maintenance of levees along stream causing overflow and flood damage. Injunction issued requiring both parties to do certain acts. Defendant required not to rebuild levee and both required to clean out debris in the creek.
7	*Park v. Central Illinois Electric and Gas Co.,* Chancery No. 7093 (Logan County Cir. Ct., 1953).	Complaint for damages and injunction because of injury to farmland and crops as a result of erection and maintenance of a dam in the Sangamon River, causing overflow. Relief denied on ground the allegations were not supported by the facts.
8	*People v. Craft* (Richland County Co. Ct., 1956).	Information filed by state's attorney under Ill. Rev. Stat., c. 38, § 466 (1955) (a provision regarding public nuisances later transferred to c. 100½, § 26) because of pollution of a stream by an oil company with salt water and other refuse matter. Guilty plea entered and fine of $35 assessed and paid.
9	*Terry v. City of Pinckneyville,* C. L. No. 3717 (Perry County Cir. Ct., 1947).	Complaint for damages for $21,700 resulting from flood damage to farmland and crops caused by the erection of a dam across a creek. Submitted to arbitration by five arbitrators. Arbitrators' award of $4,400 accepted and case dismissed on plaintiff's motion.
10	*Ellis v. City of Taylorville,* Chancery No. 58-1008 (Christian County Cir. Ct., June 16, 1959).	Suit for injunction (plus $5,000 damages) to require city to supply plaintiff with water from water system according to terms of grant of right of way across farm to city's well on neighboring land, requiring that if plaintiff's source of supply was substantially impaired, city would supply water from its water system. Involved groundwater supply. Plaintiff's wells went dry. Held: Injunction and damages refused apparently because it was not conclusively shown that defendant's wells caused the trouble and because the source of supply was still there, only at a lower level. See description under Trial Court Activity, p. 228.

APPENDIX D

SUMMARY OF REPLIES TO QUESTION ABOUT CONFLICTS IN USE OF WATER FOR IRRIGATION

Questionnaires about water use were sent to farm irrigators in Illinois on April 30, 1957; 240 questionnaires were returned, of which about 5 percent contained answers or comments about conflicts in water use. No actual litigation was reported.[1]

Nature of answers or comments

Use from surface-water sources: 9 answers or comments

1. Complaints and grumbling by neighbors: 2
2. Question concerning legality of drawing for use from drainage ditch: 1
3. Pollution interference: 1
4. Comments alleging misinformation was received concerning method of protecting right of use: 3
   a. Regarding registration of use with county or state agency: 2
   b. Advice from a governmental official: 1
5. Comment that no problem existed because of very large supply: 1
6. Request for information on water rights: 1

Groundwater: 3 answers or comments

1. "Talk" going on: 1
2. Comment that user had sought advice from state university as to possible precautions for preserving his right of use: 1
3. Request for information regarding registration of use: 1

Surface drainage water: 1 comment

1. Comment that irrigators should be allowed to use runoff water without objection because otherwise it would not be put to any beneficial use.

Other information

All who made comments expressed a general desire to obtain more information on water rights.[2]

Wells were the chief source of water reported by the 240 irrigators. Wells represented 35 percent of all sources; water from springs and runoff collected in reservoirs, 28 percent; natural streams, 23 percent; drainage ditches, 6 percent; natural lakes, 6 percent; and city water, 2 percent. Sixty-five percent of the reservoirs impounded water from runoff, 24 percent from springs and seepage, and the source of water for 11 percent was not reported.[3]

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[1] See V. Davis, NATURE AND EXTENT OF IRRIGATION IN ILLINOIS, U. Ill., Dept. Agr. Econ., in cooperation with Agr. Res. Serv., U. S. Dept. Agr., Res. Rept. AERR 24, July, 1958, p. 17.

[2] *Ibid.*

[3] *Id.*, p. 11.

APPENDIX E

Forms used by State of Illinois, Department of Public Works and Buildings, Division of Waterways, Springfield, Illinois. The wording of the forms has been reproduced but not the precise format and typography.

FORM USED FOR APPLICATION FOR PERMIT

INSTRUCTIONS FOR MAKING APPLICATION FOR PERMITS

These instructions revoke all former instructions conflicting herewith.

The Illinois Statutes provide that it shall be unlawful to make any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description or build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, causeway, harbor or mooring facilities for watercraft, or build or commence the building of any other structure, or do any work of any kind whatsoever in any of the public bodies of water within the State of Illinois, without first submitting the plans, profiles, and specifications therefor, and such other data and information as may be required, to the Department of Public Works and Buildings of the State and receiving a permit therefor signed by the director of said Department and authenticated by the seal thereof; provided, that the building of any causeway, harbor or mooring facilities for watercraft in Lake Michigan shall be confined to that area of Lake Michigan lying South of the Chicago River Entrance, West of the U. S. Inner Breakwater, North of East 11th Place extended and East of the Harbor Line established by the Secretary of War May 3, 1940 and shall be in aid of and not an interference with the public interest or navigation; — (Ill. Rev. Stat., Chapter 19, Pars. 65 and 65a.)

In addition to plans, profiles and specifications the Division of Waterways provides standard APPLICATION FOR PERMIT forms to be used in applying for the above mentioned permits. These forms may be secured at the following offices of the Division of Waterways [Springfield, Rock Island, Carbondale, and Chicago].

In this application form the applicant's name, address, name of the stream or the body of water affected and location of the project should be shown in the spaces provided.

In Paragraph 1 of the form, a brief description of the proposed project shall be given. The description of the property on which the project is to be constructed shall be included in Paragraph 2 together with the applicant's rights in this property. If the property affected is bounded by a lake, the name of the lake shall appear in this paragraph. The present occupancy of the property shall be explained in Paragraph 3 together with the names of parties having or claiming title or other rights to the property.

The application shall be signed in accordance with the note appearing on Page 3 of the APPLICATION FOR PERMIT.

PLANS, SPECIFICATIONS AND OTHER DATA

Plans and specifications for a project shall definitely locate the work with respect to established land lines by means of sufficient survey ties to make establishment of the location readily possible, and contain adequate profiles, elevations, cross sections and other data. High, low and mean water elevations of the body of water affected shall be shown on the plans. The plans shall be 8½" x 11" in size and shall furnish adequate and complete details and all pertinent information. The names and addresses of the owners of property adjacent to the proposed work shall be furnished with the application.

Two copies of the APPLICATION FOR PERMIT form properly executed and three complete sets of plans, profiles and specifications shall be submitted for each project.

Chief Waterway Engineer.

(Printed July, 1958)

APPLICATION FOR PERMIT

TO THE STATE OF ILLINOIS
BY AND THROUGH THE DEPARTMENT
OF PUBLIC WORKS AND BUILDINGS
DIVISION OF WATERWAYS:

APPLICANT_____

_____Street

City_____ State_____

Name of stream or body of water affected_____

_____

Location of Project_____¼, Section_____, Township_____, Range_____
of the_____ P. M._____County.

(1) The applicant desires and hereby applies for a permit to

which shall be constructed in accordance with plans and specifications which said applicant has caused to be prepared and which are attached hereto and made a part hereof.

(2) The applicant represents that __he__, it__ is__ are__ the owner(s) __lessee(s)__of the following described real estate on which the proposed project is to be located, to-wit:

A part of the boundary line of this real estate is the shore line of Lake

_____

(3) That said real estate is occupied by

for

purposes; that the title of record to said real estate is in

and that no other person or persons, firm or firms, corporation or other party has, or claims to have any right, title or interest in possession, remainder, reversion or otherwise in and to said real estate, except

(4) The applicant further represents that said project or the use thereof will, if and when completed, not pollute or defile said stream, lake or pond, or otherwise interfere with the natural use of the waters of said stream, lake or pond, except as herein provided.

(5) The applicant further represents that said project will, if and when completed, not flood or damage adjoining property either above or below its location.

(6) The applicant agrees to remove all piling, coffer-dams, false work, excavation and material, incident to the construction of the project for which a permit is herein requested, from the river, stream or lake in which the work is done, at his own expense. Should the applicant fail to remove such structures or material, the State reserves the right to have such removal made at the expense of the applicant. If future operations for public navigation by the State or Federal Government or public interests of any character necessitate any changes in the positions of any parts of the project for which a permit is herein requested, the applicant or his successors agree to make such changes in such manner as shall be fixed and determined by the State of Illinois, acting by and through the Department of Public Works and Buildings or other properly constituted agency, within sixty days from receipt of written notice from the

Department of Public Works and Buildings or other properly constituted agency that such changes must be made.

(7) If the project for which a permit is herein applied for is located in or along a lake, the applicant agrees that neither he nor his successors, as the owner or lessee of the above described real estate, nor his successors in title, shall make any claim whatsoever to any right, title or interest in and to any accretions caused by the construction of said project, and that they hereby remise, convey, release and quit-claim unto the people of the State of Illinois, for the use and benefit of the public all right to any accretions which may accrue to said real estate because of said project.

(8) That neither the applicant nor his successors in title shall fill at any place along said shore line with rocks, clay, debris, refuse or other material, except as herein provided.

(9) The applicant further agrees and understands that the permit requested herein, if issued, does not convey, lease or provide any right or rights of occupation or use of the public or private property on which the proposed project or any part thereof may be located, or otherwise grant to the applicant any right or interest in or to said property, whether said property is owned or possessed by the State of Illinois or by any private or public party or parties.

(10) The applicant futher agrees, if the requested permit is issued, to comply with all acts of the Congress of the United States of America relative to the right to construct the project, before construction is started.

(11) The Department of Public Works and Buildings in issuing the permit herein applied for may rely upon the statements made herein as true.

WITNESS the Signature___ and seal___ of the applicant___ this_____ day of _____ A.D. 19_____.

_____ [SEAL]

_____ [SEAL]

_____ [SEAL]

STATE OF ILLINOIS, }
COUNTY OF } ss.

I, _____ a Notary Public in and for and residing in said County in the State aforesaid, do hereby certify that_____ personally known to me to be the same person____ whose name _____ subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that ___he___ signed, sealed and delivered the said instrument as _____ free and voluntary act for the use and purposes herein set forth, including the release and waiver of the right of Homestead.

Given under my hand and Notarial Seal this _____ day of _____ A. D. 19_____

_____
Notary Public.

NOTE

If the applicant is a corporation have the President or other authorized officer sign the Corporate name by him as President; also have the Secretary attest his signature as Secretary and affix the seal of the corporation.

If the applicant is a partnership have each partner sign.

If the applicant is a county, city, or other municipal corporation have the application signed by the Chairman of the County Board, Mayor, or other officer and have the proper clerk attest the same and affix the corporate seal. Also a certified copy of the resolution or ordinance authorizing the application must be attached.

All inserts, attachments, documents or small plans which the applicant desires to have made a part of this application, or otherwise necessary, shall be securely attached to the top of page three by adequate clips or other means.

FORM USED FOR GRANTING PERMIT

Permission is hereby granted, this day of 19
To

in accordance with an application dated , and the specifications and plans entitled

filed with the Department of Public Works and Buildings and made a part hereof, and subject to the terms and special conditions contained herein:

Examined and Recommended: Approved:

Engineer of Permits. Director.

Approval Recommended:

Chief Waterway Engineer.

THIS PERMIT is subject to the following conditions:

(a) This permit is granted in accordance with an act entitled: "AN ACT in relation to the regulation of the rivers, lakes and streams of the State of Illinois," approved June 10, 1911.

(b) This permit does not convey or recognize any title of the Permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the proposed project or any part thereof will be located, or otherwise grant to the Permittee any right or interest in or to said property whether said property is owned or possessed by the State of Illinois or by any private or public party or parties.

(c) This permit does not in any way release the Permittee from any liability for damage to persons or property caused by or resulting from the work covered by this permit, and does not sanction any injury to private property or invasion of private rights, or infringement of any Federal, State or local laws or regulations.

(d) The Permittee shall remove all piling, cofferdams, false work, excavation and the material incident to the construction of the project herein authorized, from the river, stream or lake in which the work is done, at his own expense. Should the Permittee fail to remove such structures or material, the State reserves the right to have such removal made at the expense of the Permittee. If future operations for public navigation by the State or Federal Government or public interests of any character necessitate any changes in the position of any part of the structure or structures herein authorized, such changes shall be made by and at the expense of the Permittee or his successors in such manner as shall be fixed and determined by the State of Illinois, acting by and through the Department of Public Works and Buildings, or other properly constituted agency, and within sixty (60) days from receipt of written notice of such necessity from said Department or other properly constituted agency.

(e) If the work herein permitted is not completed on or before _____ _____ this permit shall cease and be null and void.

(f) The execution and details of the work hereby authorized shall be subject to the supervision and approval of the Department of Public Works and Buildings — Division of Waterways.

(g) Starting work on the construction hereby authorized shall be considered full acceptance by the Permittee of all the terms and conditions of this permit; however, the attached acceptance, properly executed by the Permittee, must be filed in the office of the Department of Public Works and Buildings, Division of Waterways, Springfield, Illinois, within sixty (60) days of the date hereof or this permit shall be null and void.

(h) There shall be no deviation from the plans submitted and hereby approved unless the proposed change in plans shall first have been submitted to and approved, in writing, by the State of Illinois acting by and through its Department of Public Works and Buildings.

(i) The Department of Public Works and Buildings in issuing this permit has relied upon the statements and representations made by the Permittee in his application therefor, and in case any statement or representation in said application is found to be false, this permit may be revoked at the option of the Department of Public Works and Buildings, and when so revoked all rights of the Permittee hereunder shall thereupon and thereby become null and void.

(j) If the Permittee is required by an act of Congress to obtain a permit from any Federal authority for leave to do the things granted by this permit, then such Federal permit shall be obtained before this permit becomes effective.

(k) If the project authorized herein is located in or along a lake, the Permittee or his successors shall make no claim whatsoever to any right, title or interest in and to any accretions caused by the construction of said project, and by the acceptance of this permit agrees to remise, convey, release, and quitclaim unto the People of the State of Illinois, for the use and benefit of the public, all rights to any accretions which may accrue to said real estate because of said project.

(l) This permit is subject to further special conditions as follows:

In issuing this permit, the Department of Public Works and Buildings shall not be considered as approving the adequacy of the design or structural strength of the proposed structure or improvement.

(m) This permit is subject to further special conditions as follows:

APPENDIX F

Forms used by State of Illinois, Department of Mines and Minerals, and by the State Geological Survey in connection with wells. The wording of the forms has been reproduced exactly but not the precise format and typography.

APPLICATION FOR PERMIT TO DRILL

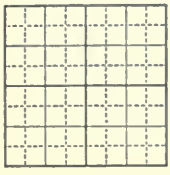
PREPARE AND SUBMIT IN DUPLICATE _____, 19____

STATE DEPARTMENT OF MINES AND MINERALS:

Please issue an authorization to drill a water well on the property of_____ _____, whose address is_____ _____; said well to be located as follows: _____feet (East-West) and_____feet (North-South) of the _____Corner of the _____ ¼ of Section_____, Township_____(North-South) Range _____ (East-West), _____County.

Or otherwise located as_____ _____

Section_____



Said well is to be drilled with_____tools to a depth of approximately_____feet, with an anticipated yield of _____gals. per minute; drilling will begin on or after receipt of authorization.

_____ _____ _____

Signature of Driller | Address | City

PERMIT TO DRILL

State of Illinois
DEPARTMENT OF MINES AND MINERALS
Springfield, Illinois

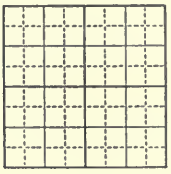
PERMIT TO DRILL WATER WELL

Permit is hereby granted to:

_____

to drill a water well for:

_____



Sec.____
T____
R____

as requested in application of _____, 19__ _____ Co.
Permit granted with the understanding that driller's log will be furnished to the State Geological Survey, Urbana, Ill., in compliance with Illinois Statute (Smith-Hurd, Chap. 104, par. 34-37).

Date_____ DEPARTMENT OF MINES AND MINERALS
Director

LOG OF WATER WELL

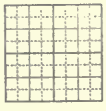
Property owner_____ Well No._____
Drilled by_____ Year_____

Formations passed through	Thick-ness	Depth of Bottom

[Continue on back if necessary]

Finished in_____ at_____ to_____ ft.
Cased with_____ inch_____ from 0 to_____ ft.
and_____ inch_____ from_____ to_____ ft.
Size hole below casing_____ inch. Static level from surf._____ ft.
Tested capacity_____ gal. per min. Temperature_____ °F.
Water lowered to_____ ft._____ in. in_____ hrs._____ min.
Length of test_____ hrs._____ min. Screen_____
Slot_____ Diam._____ Length_____ Bottom set at_____ ft.
[Show location in Section Plat]

Township name_____ Elev._____
Description of location_____
_____



Sec._____
Twp._____
Rge._____

Signed_____ County_____

Copy for Illinois State Water Survey Index:

APPENDIX G

SANITARY WATER BOARD LIST OF SANITARY DISTRICTS IN STATE (as of July 1, 1963)[1]

Sanitary Districts Organized Under Act of June 22, 1917

Name	*County*	*Year created*
Albany Sanitary District	Whiteside	1959
Alhambra Sanitary District	Madison	1957
Andalusia Sanitary District	Rock Island	1962
Ashley Sanitary District	Washington	1961
The *Aurora* Sanitary District	Kane, Kendall, DuPage (district serves North Aurora, Aurora, Montgomery)	1925
Beardstown Sanitary District	Cass	1927
Bloomington and Normal Sanitary District	McLean	1919
Sanitary District of *Bloom Township*	Cook, Will (district serves Chicago Heights, South Chicago Heights, Park Forest)	1928
Carrier Mills Sanitary District	Saline	1954
Central City Sanitary District	Marion	1960
Greater *Chillicothe* Sanitary District	Peoria (district serves Chillicothe and North Chillicothe)	1959
Clinton Sanitary District	DeWitt	1925
Greater *Creve Coeur* Sanitary District	Tazewell	1957
Danville Sanitary District	Vermilion	1935
Sanitary District of *Decatur*	Macon	1917
DeKalb Sanitary District	DeKalb	1928
Downers Grove Sanitary District	DuPage	1921
Durand Sanitary District	Winnebago	1958
East Peoria Sanitary District	Tazewell	1928
Elgin Sanitary District	Kane, Cook	1922
El Paso Sanitary Drainage District	Woodford	1919
Franklin Grove Sanitary District	Lee	1958
The *Galesburg* Sanitary District	Knox	1924
Germantown Sanitary District	Clinton	1955
Golconda Sanitary District	Pope	1959
Hanna City Sanitary District	Peoria	1959
Hinsdale Sanitary District	DuPage, Cook (district serves Hinsdale, Clarendon Hills, part of Westmont, and Harvester)	1926
Joppa Sanitary District	Massac	1954
Keysport Sanitary District	Clinton	1962
Livingston Sanitary District	Madison	1961
Lindenhurst Sanitary District	Lake	1962
Macon Sanitary District	Macon	1950
Maquon Sanitary District	Knox	1960
Marine Sanitary District	Madison	1952

[1] Source: THE SANITARY DISTRICTS OF ILINOIS, Ill. Dept. Public Health Tech. Rel. No. 20-3, Nov., 1951, revised July 1, 1963.

Mathersville Sanitary District	Mercer	1962
Mulberry Grove Sanitary District	Bond	1956
New Baden Sanitary District	Clinton	1954
Newark Sanitary District	Kendall	1958
Noble Sanitary District	Richland	1957
Norris City Sanitary District	White	1949
Orion Sanitary District	Henry	1958
Oneida Sanitary District	Knox	1961
Patoka Sanitary District	Marion	1961
Paw Paw Sanitary District	Lee	1958
The Greater *Peoria* Sanitary and Sewage Disposal District	Peoria (district serves Peoria, Peoria Heights, Bartonville)	1927
Sanitary District of *Rockford*	Winnebago (district serves Rockford and Loves Park)	1926
Sanitary District of *Rockton*	Winnebago	1959
The *Round Lake* Sanitary District	Lake (district serves Round Lake, Round Lake Park, Round Lake Beach, part of Hainesville)	1946
Salt Creek Drainage Basin Sanitary District	DuPage (district serves Villa Park)	1928
Sheridan Sanitary District	LaSalle	1950
Sherrard Sanitary District	Mercer	1962
The *Springfield* Sanitary District	Sangamon (district serves Springfield, Leland Grove, Jerome, Souther View, Grandview)	1924
St. Peter Sanitary District	Fayette	1961
Taylorville Sanitary District	Christian	1923
Tremont Sanitary District	Tazewell	1961
Urbana and Champaign Sanitary District	Champaign	1921
Vienna Sanitary District	Johnson	1952
Viola Sanitary District	Mercer	1960
Virden Sanitary District	Macoupin	1940
Wayne City Sanitary District	Wayne	1960
Westville-Belgium Sanitary District	Vermilion	1954
Wheaton Sanitary District	DuPage	1924
Yorkville-Bristol Sanitary District	Kendall	1954

Sanitary Districts Organized Under Act of 1936

Name	*Location*	*Year created*
Barrington Woods Sanitary District	Cook County Palatine Township, Sec. 3	1955
Central Stickney Sanitary District	Cook County Stickney Township, Sec. 9	1952
Clearview Sanitary District	McLean County Sec. 21, T23N, R2E 3rd PM	1937
Countryside Sanitary District	Cook County Lyons Township, Sec. 9, 16	1959
Gages Lake Sanitary District	Lake County	1959
Garden Homes Sanitary District	Cook County Worth Township, Sec. 23	1953
Glenbrook Sanitary District	Cook County	
Glen Oak Acres Sanitary District	Cook County Northfield Township, Sec. 25	1952

Grandview Park Sanitary District	Cook County Worth Township, Sec. 7, 8	1955
Graue's Woods Sanitary District	DuPage County Elmhurst, Sec. 34; Addison, Sec. 3; York	1955
Highland Hills Sanitary District	DuPage County York Township Sec. 20	1957
Kimberly Heights Sanitary District	Cook County SW¼ Sec. 20 T26N R13E	1961
LaGrange Highlands Sanitary District	Cook County Palos Township, Secs. 8, 17, 20	1958
Manor Heights Sanitary District	Cook County Worth Township, Sec. 5	1956
Mission Brook Sanitary District	Cook County Northfield Township	1959
North Elmhurst Sanitary District	DuPage County Addison Township, Sec. 25, 36	1959
Northfield Woods Sanitary District	Cook County Northfield Township, Sec. 30	1956
Oak Meadows Sanitary District	Cook County	
Orchard Place Sanitary District	Cook County Maine Township, Sec. 32, 33	1954
Prospect Meadows Sanitary District	Cook County Wheeling Township, Sec. 27	1959
Ridgeland Park Sanitary District	Cook County Worth Township, N½ Sec. 6 T37NR12E	1960
South Roxana Sanitary District	Madison County	1947
South Stickney Sanitary District	Cook County Stickney Township, Sec. 28, 33	1951
Summersville Sanitary District	Marion County	1962
Swissville Sanitary District	Lee County	1937
Timber Trails Sanitary District	DuPage County	
Westdale Gardens Sanitary District	Cook County — Proviso Township, NW¼ Sec. 19 T39N R12E	1960
Yorkfield Sanitary District	DuPage County	1960
Zurich Heights Sanitary District	Lake County	1955
Wood River Township Sanitary District	Madison County — Rosewood Heights, Forest Homes, Cottage Hills	1961

Sanitary Districts Formed Under Special Acts

Name	*Location*	*Year created*
The Metropolitan Sanitary District of Greater *Chicago* (1889 Act)	Cook County — Chicago and other communities	1889
East Side Levee and Sanitary District (1907 Act)	Madison, St. Clair Counties	1907
North Shore Sanitary District (1911 Act)	Lake County — Winthrop Harbor, Zion, Waukegan, North Chicago, Lake Bluff, Lake Forest, Highland Park, Gurnee, Park City	1911

APPENDIX H

MUNICIPALITIES AND SANITARY DISTRICTS WITHIN THE METROPOLITAN SANITARY DISTRICT OF GREATER CHICAGO (as of September, 1963)[1]

Municipalities

Alsip
Arlington Heights
Bartlett
Bedford Park
Bellwood
Bensenville (part)
Berkeley
Berwyn
Blue Island
Bridgeview
Broadview
Brookfield
Burnham
Calumet City
Calumet Park
Chicago
Chicago Heights (part)
Chicago Ridge
Cicero
Country Club Hills
Countryside
Crestwood
Deerfield (part)
Des Plaines
Dixmoor
Dolton
East Chicago Heights
East Hazel Crest (part)
Elk Grove
Elmwood Park
Evanston
Evergreen Park
Forest Park
Forest View
Franklin Park
Glencoe
Glenview
Glenwood
Golf
Hanover Park
Harvey
Harwood Heights
Hazel Crest
Hickory Hills
Hillside
Hinsdale (part)
Hodgkins
Hoffman Estates
Hometown
Homewood (part)
Indian Head Park
Justice
Kenilworth
La Grange
La Grange Park
Lansing (part)
Lemont
Lincolnwood
Lynwood
Lyons
Markham
Matteson (part)
Maywood
Mc Cook
Melrose Park
Merrionette Park
Midlothian
Morton Grove
Mount Prospect
Niles
Norridge
Northbrook
Northfield
Northlake
North Riverside
Oak Forest
Oak Lawn
Oak Park
Orland Park
Palatino
Palos Heights
Palos Hills
Palos Park
Park Ridge
Phoenix
Posen
Richton Park (part)
Riverdale
River Forest
River Grove
Riverside
Robbins
Rolling Meadows
Roselle (part)
Rosemont
Sauk Village
Schaumberg Center
Schiller Park
Skokie
South Barrington (part)
South Holland
Stickney
Stone Park
Streamwood
Summit
Tinley Park
Westchester
Western Springs
Wheeling
Willow Springs
Wilmette
Winnetka
Worth
Westhaven

Sanitary Districts

Barrington Woods Sanitary District
Central Stickney Sanitary District
Countryside Sanitary District
Garden Homes Sanitary District
Glen Oak Acres Sanitary District
Glenbrook Sanitary District
Grandview Sanitary District
Hinsdale Sanitary District (part)
Kimberly Heights Sanitary District
La Grange Highlands Sanitary District
Manor Heights Sanitary District
Mission Brook Sanitary District
Northfield Woods Sanitary District
Oak Meadows Sanitary District
Orchard Place Sanitary District
Plum Grove Woodlands Sanitary District
Prospect Meadows Sanitary District
Ridgeland Park Sanitary District
South Stickney Sanitary District
Westdale Gardens Sanitary District

[1] List supplied by Mr. George A. Lane, Attorney for the District.

APPENDIX I

INFORMATIONAL BULLETIN REND LAKE RESERVOIR BIG MUDDY RIVER, ILLINOIS[1]

Introduction

This bulletin has been prepared as a supplement to the public notice issued by the Division Engineer, U. S. Army Engineer Division, Lower Mississippi Valley, in January 1962, concerning a study of Rend Lake Reservoir on the Big Muddy River, Illinois. The study was made at the request of the Area Redevelopment Administration pursuant to application by the Rend Lake Conservancy District for assistance in construction of a dam and reservoir on the Big Muddy River in the vicinity of Benton. The study constitutes a partial response to House Public Works Committee Resolution dated 6 July 1949 which authorized an over-all basin investigation of the Big Muddy River.

Description

The watershed

The Big Muddy River basin is located in Southern Illinois and drains all or parts of eight counties. The study reported on herein is concerned primarily with that portion of the basin lying in the upper reaches of the Big Muddy River above Benton, containing approximately 488 square miles or about one-fifth of the entire basin area. The watershed under consideration is characterized by hilly upland topography and broad almost flat lowlands along the principal watercourses. Maximum relief varies from approximately elevation 620 feet above mean sea level near the headwaters to approximately elevation 380 feet at the site of the proposed Rend Lake Dam.

The stream

The Big Muddy River rises in Jefferson County, flows in a generally southwesterly direction a distance of approximately 155 miles, and empties into the Mississippi River at mile 75.7 above the mouth of the Ohio River, near Grand Tower. Total fall of the Big Muddy River is about 260 feet. Water surface slopes vary from about 10 feet per mile near the source to about one foot per mile in the area at Benton. Widths of the Big Muddy River channel in the area upstream of Benton vary from about 100 feet for low water conditions to an average of about 285 feet for high water conditions. Channel capacity of the Big Muddy River ranges from approximately 1,000 c.f.s. at Benton to 5,000 c.f.s. at Murphysboro. The major tributaries to the proposed reservoir are Casey Fork, Rayse Creek, Atchison Creek, Gun Creek, and Marcum Creek.

Economic development

Based on the 1960 census, total population of Jefferson and Franklin Counties, in which the proposed Rend Lake Reservoir is located, is estimated at 71,600, of which approximately 48 percent is urban. Mining of bituminous coal, oil production, and farming are the principal industries within the area under discussion. There are also several small manufacturing plants, including

[1] Prepared by St. Louis Dist., U.S. Army Corps of Eng'rs, St. Louis, Mo., Jan., 1962. A map of the area and proposed reservoir included at the end of this bulletin is not reproduced here. Some later changes in plans, arrangements, cost estimates, etc., are reflected in Supplementary Information, Rend Lake Reservoir, included at the end of this report.

food, apparel, lumber, printing, leather, metal, machinery, and miscellaneous items. Agriculture products include corn, forage, and orchard crops. Some livestock raising is carried on in the area. Southern Illinois for over 30 years has been an area of chronic unemployment and underemployment. For the labor market area which embraces the territory surrounding the proposed Rend Lake Reservoir, current unemployment is estimated at approximately 20,000. Jefferson and Franklin Counties show 11.4 percent and 24.4 percent, respectively, of the labor force unemployed. Of the eight counties which lie in whole or in part in the Big Muddy River basin, seven are classified as areas of substantial and persistent unemployment.

Floods

Detailed flood data are not available prior to 1913. However, newspaper accounts and records indicate that destructive floods occurred in 1875 and 1908. Principal floods during the period of record are those of 1913, 1915, 1943, 1944, 1946, 1950, and 1961, the latter being the greatest flood of record. Crop and property damages are estimated at $157,100 annually.

Improvements desired

The District Engineer held a public hearing in Benton, Illinois, on 7 December 1961. Approximately 500 people attended, including members and respresentatives of The Congress of the United States, the Governor of Illinois, various Federal and State agencies, State legislature, Mayors, Boards of County Supervisors, Chambers of Commerce, labor, trades, various civic organizations, industries, and local interests. The majority favored construction of the Rend Lake Reservoir to provide water supply, recreation, and pollution abatement. Those in the area downstream of the proposed dam emphasized the need for flood control. The bottom land farmers who would be displaced by construction of the Rend Lake project opposed the project. Coal mine owners in the area requested that full consideration be given to any adverse effects the project might have on their continued operations.

Solutions Considered

General

Studies related to this report have been based essentially on the plan of improvement developed by the Division of Waterways, State of Illinois, in its report published in 1957. The review of the State's report included a determination of the engineering feasibility, the optimum water uses, and the economic justification of the project.

Multiple-purpose features

The following objectives were considered in developing the optimum plan of operation for the Rend Lake Reservoir.

a. Provide flood control in the valley below the dam, either by reducing flood stages through a time-lag effect, in which case there would be no reservoir storage allocated specifically for flood control purposes, or by allocation of definite storage for flood waters.

b. Provide an assured source of domestic and industrial water supply for towns and communities in the basin over the life of the project.

c. Increase low water flows in the Big Muddy River in the interest of pollution abatement.

d. Use of the stored waters in the reservoir for conservation of fish and wildlife.

e. Recreation.

f. Long-range redevelopment to alleviate the depressed economy of the region.

Plan of Improvement

General

After consideration of the various solutions investigated, it was determined that the plan of improvement which would provide the greatest over-all benefit to the Big Muddy basin would consist of the proposed Rend Lake Dam and Reservoir operated for flood control, water supply, pollution abatement, conservation of fish and wildlife, and recreation.

Reservoir features

The proposed dam would be located on the Big Muddy River approximately 103.7 miles above its mouth, opposite Benton, Illinois. The dam would consist of a compacted earth embankment with an uncontrolled concrete spillway and outlet channel. The top of dam would be approximately 42 feet above the general valley floor. Total length of dam and spillway is approximately 8,900 feet. An auxiliary earth spillway would be located in the east abutment of the dam. At normal pool, elevation 405, the reservoir would have a surface area of approximately 18,900 acres and contain about 191,000 acre-feet of storage.

Project Costs

Estimates of first costs are based on the assumption that the United States will construct the dam and appurtenant works, make such alterations and relocations of highways, railroads, and utilities, and undertake remedial measures as are necessary. Acquisition of necessary lands and improvements would be undertaken by the Rend Lake Conservancy District. Total estimated costs of the Rend Lake Reservoir are $30,400,000, of which $22,300,000 would be Federal costs and $8,100,000 non-Federal costs. Annual operation and maintenance costs, including major replacements, are estimated at $88,000 yearly, of which $66,600 would be Federal cost and $21,400 non-Federal cost.

Benefits of the Improvement

General

Principal benefits attributable to the reservoir include reduction of flood damages in the Big Muddy River valley below the dam, minor reduction of flood crests in the Mississippi River, domestic and industrial water supply, pollution abatement, fish and wildlife conservation, recreational development, and a means of regaining economic prosperity in Southern Illinois.

Flood control

Operation of the reservoir as planned herein would, in addition to eliminating approximately $80,900 average annual damages, make possible more intensive cropping practices with some redistribution of acreages planted. These latter benefits, amounting to approximately $133,500 on an average annual basis, would accrue at varying amounts in the valley between the Rend Lake Dam and Murphysboro. There would also be some minor reduction in flood crests on the Mississippi River estimated at $2,100 annually. Thus, total annual benefits creditable to the Rend Lake Reservoir for eliminating flood damages are estimated at $216,500.

Domestic and industrial water supply

While it is not possible to definitely determine all of the potential water users at this time, the Public Health Service indicated that the ultimate demand from the Rend Lake Reservoir would be approximately 40,000,000 gallons per day, within an area of 25 miles of the reservoir. Average annual benefits to water supply are estimated at $300,700.

Pollution abatement

The Public Health Service in studying the Rend Lake project indicated that forecasted future population growth in the basin would contribute a large domestic and industrial waste load to the stream. Under the low flow conditions characteristic of the Big Muddy River, the water quality would be seriously impaired. The contemplated minimum daily release of approximately 30 c.f.s. would greatly improve such conditions. Benefits attributable to waste reduction by low flow augmentation are estimated at $60,600 annually.

Fish and wildlife conservation

A detailed report prepared by the U. S. Fish and Wildlife Service indicates a substantial benefit to the fishery and wildlife resources by the proposed operation of the Rend Lake Reservoir. The net annual fishery benefit is estimated at $254,000. The operational plan includes construction of two small impoundments in the upper arms of the reservoir, one on Rayse Creek and the other on Casey Fork, as a waterfowl refuge. Benefits attributable to these additional facilities are estimated at $58,000 annually. Total average annual benefits for fish and wildlife conservation are estimated at $312,000.

Recreational benefits

The influx of visitors to the reservoir area will supplement other benefits derived therefrom, and expenditures by recreationists for services and commodities will broaden the scope of commercial activities and strengthen the economy of the region. The National Park Service estimates that visitation anticipated within 3 years after completion of the project would be approximately 1,670,000. Based solely on provisions of public use facilities planned by the Federal Government, average annual recreational benefits are estimated at $536,100.

Redevelopment benefits

In addition to the primary benefits credited to the project the proposed Rend Lake Reservoir will provide additional benefits based on its contribution to the reorientation of the depressed economy of the region. According to the Area Redevelopment Administration, the long-range redevelopment benefits include new jobs in the area with a substantial increased payroll, decrease in area relief costs, and an increase in Federal income taxes. An assessment of long-range redevelopment benefits attributable to the Rend Lake Reservoir was estimated at $285,100 annually.

Negative benefits

Detriments or negative benefits to overland transportation resulting from costs of providing greater clearances for bridges to be modified or reconstructed and increased operation costs of vehicle operation have been estimated at $36,000 annually. These increased costs have been deducted from the total of the foregoing benefits to obtain the net benefits for the considered improvement.

Total benefits

Total net average annual benefits attributable to the Rend Lake Reservoir are estimated at $1,675,000. The benefit-cost ratio for the Rend Lake Reservoir is computed to be 1.6 to 1.

Local Cooperation

In accordance with provisions of the Water Supply Act of 1958, the cost of storage allocated to water supply in the Rend Lake Reservoir would be reimbursed by the users. The estimated cost to local interests for water supply is $4,990,000 which represents 16.41 percent of the initial construction cost of the project. In addition, the annual cost of operation and maintenance, including major replacements allocated to water supply, would be borne by the water users. This annual cost, presently estimated at $8,800, is equivalent to 10.00 percent of the total annual cost of operation and maintenance, including replacements. The portion of the cost allocated to fish and wildlife conservation that is to be borne by non-Federal interests is presently estimated at $1,583,000, or 5.21 percent of the initial construction cost. The annual cost of operation and maintenance, including major replacements, assigned to non-Federal interests for fish and wildlife conservation is estimated at $4,000, or 4.55 percent of the total annual operation and maintenance cost, including major replacements, for the Rend Lake Reservoir. The portion of joint project costs allocated to recreation and which is to be borne by local interests is presently estimated at $1,527,000, or 5.02 percent of the initial construction cost. In addition, local interests would be required to pay a portion of the annual cost of operation and maintenance, including major replacements allocated to this purpose, presently estimated at $8,600, or 9.80 percent of the total annual cost of operation and maintenance, including replacements for the project. The Rend Lake Conservancy District, acting as local sponsor, will be given the option to reimburse the United States for the portions of first costs of the project allocated to non-Federal interests (a) in lump sum payable prior to commencement of construction; (b) in annual amounts during the period of construction proportional to the estimated annual Federal construction costs; or (c) in equal annual payments beginning when the project is first available for these specific uses, and in any event within 50 years after the project is first available for such uses, and shall include interest on any unpaid balances. As stated previously, is is proposed that acquisition of the project lands, including necessary subordination of mineral rights, will be accomplished by the Rend Lake Conservancy District. It is further proposed that the Rend Lake Conservancy District will convey to the Federal Government those portions required for the damsite and those access areas which will be developed by the Corps of Engineers. The Conservancy District will be responsible for management of all remaining lands with the requirement that adequate access be provided along the perimeter of the reservoir at normal pool level for the general use of the public.

Pertinent Data

Stream flow data (c.f.s.)

Maximum discharge of record at damsite (flood of May 1961)	35,800
Minimum discharge at damsite	0
Average annual discharge at damsite	511
Bankfull flow at damsite	1,000

Elevations

Average flood plain elevation at damsite	382
Top of inactive storage pool	390.5
Top of pollution abatement pool	397.7
Top of water supply pool	405.0
Top of flood control pool	410.0

Storage (acre-feet)

Inactive storage pool	25,000
Pollution abatement pool	57,000
Water supply pool	109,000
Flood control pool	111,500
Total	302,500

Areas (acres)

Water supply pool (normal pool)	18,900
Flood control pool	24,800

Land requirements (acres)

Dam and reservoir, including relocations and recreational requirements	34,900

Miles of shoreline

At normal pool level 405	162

Dam and spillway

Type — Rolled filled earth embankment; uncontrolled concrete spillway and outlet channel

Total crest length (feet)	8,900
Crest width, embankment (feet)	30
Crest length, spillway (feet)	500
Elevation of spillway crest	410.0

SUPPLEMENTARY INFORMATION REND LAKE RESERVOIR

Subsequent to preparation of the interim report by the District Engineer, U. S. Army Engineer District, St. Louis, dated 27 December 1961, and issuance of a public notice thereon by the Division Engineer, Lower Mississippi Valley Division on 5 January 1962, certain additional facts and information were presented to the Board of Engineers for Rivers and Harbors for consideration. Coal companies owning substantial reserves which would be inundated by the Rend Lake project called attention to additional costs of operation which would be incurred as a result thereof and to possible additional adverse effects on continued mine operations under the reservoir. The Bureau of Public Roads and the Illinois State Division of Highways pointed out additional costs that would be incurred in raising Interstate Route 57 in the event Rend Lake Reservoir were constructed. After careful consideration, the Board of Engineers concluded that additional costs, currently estimated at $5,100,000, were properly chargeable to the project and should be included in the total project cost. The Board of Engineers further concluded that acquisition of project lands, including subordination of mineral and oil rights, should be undertaken by the Corps of Engineers and that no contribution would be required of local interests for fish and wildlife conservation because of its national significance. Subject to the above, the Board of Engineers approved the project on 27 February 1962.

The total cost of the Rend Lake project is currently estimated at $35,500,000, of which $29,469,000 would be Federal cost. The non-Federal cost of $6,031,000 includes reimbursement for water supply amounting to 16.99 percent of the currently estimated initial construction cost. Annual operation and maintenance costs, including major replacements, are estimated at $88,000 annually, of which $79,000 would be Federal costs and $9,000 non-Federal costs. The plan of improvement and the method of operation as outlined in the interim report remain unchanged. There are no changes in the benefits attributable to the project. The benefit-cost ratio is currently computed at 1.4 to 1.

NOTE: the foregoing is subject to final action by Congress.[2]

HISTORY AND PLANS OF THE REND LAKE CONSERVANCY DISTRICT[3]

Preface

This plan for Water Resource Development in the Upper Big Muddy Watershed is a start on the task of rehabilitating an important and potentially very productive area in Southern Illinois which is now considered economically depressed. It is based on authoritive data made available to the staff of the Rend Lake Conservancy District by individuals and groups as well as local, state and federal agencies.

The Trustees of the Rend Lake Conservancy District, the Directors of the Rend Lake Association and many other persons and agencies interested in the area's development have been asked to participate in the preparation, reviewing and revising of this plan. It is felt that only through such a combined effort can workable policies and procedures be formulated.

The plan presents a program for the control of the flow and distribution of the water in the Upper Big Muddy River Watershed. The over-all management problems are stressed and an analysis of the solutions to cope with such problems is presented. Success in carrying it out can be attained only if there is complete understanding of the purposes of the project and if all individuals and groups involved cooperate to carry the plans to completion.

Essentially, the plan calls for:

1. A complete soil and water conservation plan for the Upper Big Muddy River Watershed
2. Development of small tributary watershed treatment programs
3. Development and utilization of the major reservoir sites for multiple purposes
4. Development of a central water supply system
5. An adequate program of waste treatment and disposal
6. Provisions for adequate public recreation facilities

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[2] The proposed project was approved by Congress on Oct. 23, 1962, substantially as recommended by the Chief of Engineers. 76 STAT. 1189.

See 27 FED. REG. 1734 regarding joint policy of the Departments of the Army and the Interior agreed to on Feb. 16, 1962, with respect to acquisition of fee title vs. lesser interests in lands acquired for reservoir projects.

[3] Preliminary draft statement prepared by the Rend Lake Conservancy District, July, 1959. As the Rend Lake dam and reservoir is to be constructed by the Corps of Engineers, the District's plans in certain respects have been supplemented by the Corps's proposed plans as authorized by Congress.

7. Protection against flooding
8. Guaranteed flow in downstream areas

The plan is composed of many parts any one of which can be accomplished independently as part of the whole. There is a great opportunity for coordination of effort and saving of time and money if portions of it can be developed concurrently.

Purpose and scope of project

The purpose of this plan presented by the Rend Lake Conservancy District is to develop a comprehensive program of water resource development, to provide an adequate water supply for municipal, industrial, navigational, agricultural and recreational usage. In addition, the program is aimed at: 1) providing reasonable flood and drought protection; 2) creating new employment; 3) conserving soil, water and wildlife and 4) enhancing the real and aesthetic values of the area.

The plan includes data on water usage; present and foreseeable future water requirements; investigations conducted by local, state and federal agencies concerning water development feasibility programs; preliminary engineering investigations of reservoir sites, and investigations of the flood damage and land use along the major streams of the area.

The water resource development program described in this plan is not limited in scope to the immediate area of the Rend Lake Conservancy District. It takes into account the water requirements of the adjacent areas, the recreational opportunities offered by the project to the surrounding four state area encompassing 3½ million people within a 100 mile radius and industrial and power development opportunities to the whole state and nation.

The project incorporates proposals for the construction of reservoirs, detention structures, water treatment facilities, channel clearance and straightening and many other engineering and land management devices needed to store, transport, or otherwise treat water to make it available for use in proper quantity and quality, when and where needed. The ultimate objective is to provide the best water development possible that will serve the most people for the longest period of time.

In the plan, a sincere effort has been made to incorporate the thinking of as any of the interests that will be affected as possible. Representatives from agriculture, mining, oil development, highways, railroads, utilities, and county, township, and municipal governments have been asked to comment on and participate in the drafting of portions of the plan.

The plan as presented herein is a tentative proposal for the development of the area's water resources and is subject to future modifications and revisions, as necessary. Presently, the plan as designed will serve as a guide to those interested in the development of the area.

A history of the project

In March 1954, after two years of serious drought, a group of civic leaders in the Muddy River Watershed were inspired by the possibility of building a reservoir near the ghost mining town of Rend City. They formed the Rend Lake Association whose purpose was: "to conserve, improve and develop the natural resources of the Big Muddy Watershed and to encourage agriculture, water conservation, forestry, recreation, industry and other economic endeavors that will help the individual, business, and professional interests of the area."

Rend Lake was the key project of this citizen's group. In looking for ways to build a reservoir, they found a legislative act passed in 1925, entitled *The Illinois Conservancy Law,* which enabled citizens to vote in a Conservancy District, "whenever the unified control of a river system or a portion thereof, shall be deemed conducive to the prevention of stream pollution development, conservation and protection of water supply, control or prevention of floods, reclamation of wet and overflowed lands, development of irrigation, conservation of soil, provision of domestic, industrial or public water supplies, collection and disposal of sewage and other public liquid wastes, provision of forests, wildlife areas, parks and recreational facilities and to the promotion of the public health, comfort and convenience, the same may be organized as a Conservancy District under this act."

Stimulated by the possibilities offered by the Conservancy Law and by the fact that a large industry had by-passed the area because of lack of water, the Association went to work to create a Conservancy District. On January 8th, 1955, an election was held and the Rend Lake Conservancy District came into being on January 17th, of that year. The District, covering all of Franklin County and six townships of Jefferson County, includes a major portion of the Upper Big Muddy Watershed. Three cities of over 5,000 population, Mt. Vernon, Benton, and West Frankfort are located within the limits of the District. Six trustees were appointed; three by the Judges of the two counties and one each by the mayors of the three cities mentioned. The Trustees determine the basic policies of the District and see that its purpose is carried out.

A Conservancy District is legally considered a municipality and is authorized to:

1. Construct, maintain and operate feasible water improvement and recreation facilities
2. Use the right of eminent domain
3. Issue revenue bonds, or with a vote of the people, obligation bonds to stated limits
4. Assess taxes up to stated limits
5. Enter into contracts and agreements with other governmental or private agencies

After reviewing the operations of the Conservancy Districts in other states, the Trustees were particularly impressed by the Muskingum Watershed Conservancy District in Ohio where long-range planning on a watershed basis had provided for a broad multiple use of the facilities as created. They decided to follow the pattern established by the Muskingum District as far as was practical in planning for the development of the Upper Big Muddy River Watershed.

To get their original project and plans underway, they requested help from the Governor and the Legislature to study the Big Muddy River in the vicinity of Rend City to determine the feasibility of a multi-purpose reservoir at that point.

The amount of $40,000 was granted to the Illinois Division of Waterways for a preliminary engineering study which was completed in March 1957.

When local funds became available to the District, the trustees employed a consulting engineer who has had wide experience with Conservancy Districts, and a Manager who had been the former Assistant Secretary-Treasurer of the Muskingum Conservancy District. On November 1, 1956 an office was estab-

lished in Benton. A meeting of the Agricultural interests of the area was called in Mt. Vernon to discuss the watershed development possibilities. A conference of state and federal agencies was set up in Springfield to establish channels of cooperation. Later, separate recreation and industrial development conferences were held in Mt. Vernon. These sessions indicated a need for a set of Guiding Principles. Therefore, the following policy was adopted in order to facilitate planning for reservoir development.

Lands

Acquisition. At least ¼ mile of land back from flood pool shall be in public ownership whenever practical and possible to insure public access, riparian rights, and proper protection from pollution and siltation.

Use. Up to 30% of the shoreline may be dedicated for such intensive use as cottage and home sites, bathing beaches, boat docks, camping, tourist accommations, eating facilities, industrial sites, etc. The remainder is to be used for wildlife, forestry or agriculture.

Access. Free public access will be permitted on 20 foot strip around the permanent pool in non-dedicated areas.

Public maintenance of existing roads to provide access and construction of new roads and parking areas where and when needed will be encouraged.

Use restrictions. No permanent buildings or structures are to be put below flood pool elevation on any reservoir site nor within 100′ of the permanent pool level, whichever is further.

Plans for buildings and structures are to be approved in advance of construction.

Disposition. Land or rights owned by District may be leased or used under permit, but not sold.

Headwaters control. District-owned lands are to be put under maximum soil and water conservation management as quickly as possible.

Strong efforts will be expended to encourage soil and water conserving practices on private lands in the watershed.

Mineral development. Mineral development will be permissive.

Hunting. Hunting will be permissive in compliance with State and Federal laws and such local regulations as may be needed.

Waters

Pollution. Harmful pollution will not be tolerated.

Boating and swimming. Boating and swimming privileges will be governed by such regulations as are needed for safety and health.

Fishing. Fishing will be permissive in compliance with State and Federal laws and such local regulations as may be needed.

Flood protection. Detention and storages will be pre-determined by spillway designed for each individual structure, resulting in the reduction of peak flows.

Navigation. Navigation will be permissive in as far as pollution is controlled and excessive drawdowns are not required.[4]

[4] See Appendix A, List of Public Streams and Lakes in Illinois, employed by the Department of Public Works and Buildings. It defines Big Muddy as being a public stream below Zeigler. Zeigler is located below the location of the proposed dam and reservoir. Hence, it apparently would be regarded as a private non-navigable stream at the locale of the dam and reservoir. Also see Appendix L indicating that in 1962 the U. S. Corps of Engineers was treating the Big Muddy as non-navigable above Murphysboro.

Priorities of water use; 1. Domestic, sanitary and livestock use, guaranteed minimum low flow and non-consumptive industrial use.

2. Consumptive industrial use, municipal use for other than domestic purposes, navigation and supplemental irrigation, all subject to stated drawdown limits.

3. Recreation and wildlife.

4. Navigation and consumptive use beyond guaranteed minimums.

5. Stream flow maintenance in excess of guaranteed low flow.

6. Increased flood detention or storage capacity.

General resolutions

1. The role of the Conservancy District shall be to plan and develop the water resources of its territory.

2. Whenever practical, it shall not duplicate the functions of already existing agencies, but shall act as a catalytic agent. It shall seek the advice and help of such local, state and federal agencies dealing with related resource problems whenever feasible.

Other developments

After carefully studying the Division of Waterways' preliminary engineering survey of Rend Lake, the Board of Trustees authorized the purchase of land in the lake area. Financed through local funds, the first land purchase was made in January 1958.[5]

Efforts to obtain state and federal funds were continued. At the National level, the *Area Redevelopment Bill* contained provisions which would provide for immediate federal participation in a project such as Rend Lake. This bill was passed by both houses of Congress, but was vetoed by the President in September 1958. It was re-introduced in 1959, again passed and vetoed in 1960.

Also H. R. #6396, "A Bill to encourage local initiative in the development of water resources of the United States," was introduced by the area's Congressman. In the interim, appropriations were obtained by another group for the U. S. Corps of Engineers for the study of the Big Muddy-Beaucoup Creek Canalization Project. Ultimately, this could have a considerable effect on Rend Lake and the Upper headwaters development.

In June 1959, a bill was passed by the State Legislature appropriating $150,000 for land acquisition in the Rend Lake Area. This money was frozen until April 1960, when a portion was released to purchase right-of-way from the C. & E. I. Railroad, thus preventing an invasion of the lake site.[6] In

[5] This was financed by a general property-tax levy within the district. No bonds had been issued as of Aug. 10, 1961, according to Howard Mendenhall, Manager of the District.

[6] The District then helped the railroad company to acquire an alternate right of way across one arm of the Big Muddy River southwest of Nason, upon their agreement to place the low steel of their structure and approach tracks at a minimum elevation of at least 415 feet. Based on letter from Howard Mendenhall, manager of the District, dated March 13, 1963. In a letter opinion dated April 19, 1960, to E. A. Rosenstone, Director of the Dept. of Public Works and Buildings, the Illinois Attorney General had expressed the opinion that that Department should determine that it would be in the public interest before undertaking to issue a permit to the railroad company to build bridges across the river. He said it was difficult to see how the public interest would be served because it appeared that the proposed bridges would be lower than the proposed pool level of the Rend Lake. House Joint Res. No. 18 (ILL. LAWS 1959, p. 2486) concurred in by the Senate, had urged that those in charge of the proposed construction consult with the District so that the construction would be higher than the level of the lake. The Attorney General said this did not repeal the Department's authority to issue permits for structures in public waters (discussed under State Jurisdiction over Public Waters, *supra*). Nevertheless, he said, "the Department should carefully consider that State funds have been appropriated for the development and construction of Rend Lake and should especially consider the provisions of House Joint Res. No. 16 [sic] relating to factual situations which might impair the development of the Rend Lake site."

January 1961, the remainder of this appropriation was released by the Governor.[7] In March 1961, a contract with the Illinois Division of Highways, the Bureau of Public Roads, and the District protected the lake site from invasion with Interstate Highway 57. On May 1, 1961, the Area Redevelopment Act became Public Law 87-27. The public facilities Grant and Loan Clauses should make possible federal financing for the lake project.[8] State legislation will provide one million dollars for Rend Lake in 1961-1962.[9]

The Rend Lake Association, the citizens' group responsible for creating the District, has continued to function actively in a promotional role, working not only for Rend Lake, but also for the betterment of the entire Big Muddy River Watershed. They have purchased and distributed brochures, maps, posters, and bumper stickers; purchased films, erected signs, and have a working model of the lake. They have kept interest alive in the project by sponsoring meetings, direct mailings, and by working with other groups for the betterment of Southern Illinois.

EXCERPT FROM 1957 ANNUAL REPORT OF THE DIVISION OF WATERWAYS[10]

Rend Lake Reservoir. Under the provisions of Senate Bill No. 406, 69th General Assembly, the Department of Public Works and Buildings was authorized to make a survey of the Rend Lake Conservancy District in Franklin and Jefferson Counties.

The purpose of the survey was to determine the engineering feasibility of a proposed dam and reservoir on the Big Muddy River near Benton for municipal and industrial water supply, recreation, conservation and related uses.

To that end, the studies made by the Division of Waterways included the topography and subsurface structure of the dam site; the topography of and economic development in the reservoir area, and the nature and extent of necessary alterations and relocations of existing facilities; the ability of the tributary watershed to support the reservoir, including considerations of seepage, evaporation, maintenance of minimum downstream flows, and consumptive use; the probable effects of sedimentation; the magnitude and frequency of floods; and, desirable limits of pool level fluctuations in the interest of recreation and conservation.

These studies made it apparent that there is a range of approximately five feet within which a reservoir capable of supporting the desired uses would be feasible from an engineering standpoint. This range of pool level is from

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[7] As of July 11, 1961, 5,022½ acres of the 52,220 needed acres of land had been acquired. Eminent domain powers had not yet been exercised by the District in connection with such acquisitions. Based on letter received from Howard Mendenhall, manager of the District, dated July 11, 1961. Fee title ownership of lands up to ¼ mile beyond the permanent pool level had been acquired.

[8] A study grant in Oct., 1961, to have the Corps of Engineers survey the proposed lake became the first technical assistance project under this new federal legislation. See Federal Matters (Area Redevelopment Administration). (Authors' footnote.)

[9] This amount could not be expended without the Governor's written approval. See H. B. 1408 as amended. The Governor indicated that his approval would be contingent upon the availability of federal funds for the project, according to letter from Howard Mendenhall, manager of the District, dated Aug. 10, 1961.

[10] 1957 Annual Report of the Department of Public Works and Buildings, Division of Waterways, pp. 38-40.

elevation 405.0 to elevation 410.0, M. S. L., 1929 Adjustment. Studies were made for a reservoir at each of these two elevations and the accompanying tabulation lists the major features of a reservoir at these limiting elevations.[11]

SUMMARY OF ACTIVITIES INITIATED BY REND LAKE CONSERVANCY DISTRICT[12]

Engineering studies

1. Detailed Engineering Study of Rend Lake Site; completed April 1957, by the Illinois Division of Waterways.
2. Preliminary Engineering Study of Seven-Mile Creek Site; completed in June 1958, by Warren & Van Praag, Inc.
3. Preliminary Engineering Study of Pinnacle and Snow Creek Sites; completed November 1958, by Warren & Van Praag, Inc.
4. Reconnaisance Survey of 43 lake sites in Jefferson County; completed in June 1958, by Illinois Cities Water Company.
5. Water Supply Potential for Mt. Vernon from Rend Lake; completed June 1958, by Illinois Cities Water Company.
6. Regional Water Supply Potential From Rend Lake; in progress with Department of Public Health.
7. Engineering and Economic Study of Seven-Mile Creek; completed in spring 1960, by U. S. Soil Conservation Service.
8. Effect of a Control Structure on the Nason Railroad Spur; completed November 1960, by the University of Illinois Hydraulics Department.
9. Review of Basic Engineering Study; completed in spring 1961, by Illinois Division of Waterways.

Land use studies

1. Seven-Mile Creek — 100% Field Survey; completed September 1958, Southern Illinois University, Geography Department thesis.
2. Snow Creek — 100% Field Survey; completed April 1959, Southern Illinois University, Geography Department thesis.
3. Entire Big Muddy Watershed; interpolation of existing data and field checks, field work and preliminary report completed March 1959, Southern Illinois University, special study.
4. Rend Lake Area — 100% Field Survey; completed December 1959, Southern Illinois University, Geography Department; updated June 1961, General Planning and Resource Consultants.

Flood damage studies

1. Seven-Mile Creek and Snow Creek; completed June 1958, Southern Illinois University, Geography Department thesis.
2. Rayse Creek, Big Muddy, Snow and Seven-Mile Areas, Field Work; completed November 1958.
3. Big Muddy Downstream From Rend Lake, Photography; completed mapping in progress by U. S. Army Corps of Engineers.

[11] Additional data are included in the Division's publication, Report of Survey, Rend Lake Reservoir, Jefferson and Franklin Counties, 1957.

[12] Statement received from Howard Mendenhall, manager of the District, July 13, 1961.

4. Big Muddy River — Effect of Rend Lake on Downstream Property; completed spring 1961, by Hydraulics Department of University of Illinois.
5. Effect of May 1961 Flood; underway by staff.

Recreation planning

1. Preliminary Planning Conference; October 1957.
2. Active planning underway in cooperation with Southern Illinois University and citizens' groups.
3. Wildlife Planning — Field Inspection and Reports From Illinois Conservation Department and U. S. Fish and Wildlife Service; summary prepared March 1959.
4. Wildlife Management Potential of Gun Creek Area by Control Structure; June 1960, University of Illinois Hydraulics Department.
5. Major Park Development in Gun Creek, Casey Fork Point; October 1960, staff.

Industrial planning

1. Preliminary Planning Conference, November 1957.
2. Field Inspections, University of Illinois.
3. Effect of Rend Lake on Coal Reserves in Area, January 1959.
4. Effect of Railroad Spur Across Middle of Rend Lake, January 1959.
5. Industrial Potential of Rayse Creek Arm of Rend Lake; completed October 1960, staff.

Overall planning

1. Development of "A Plan for Research and Study"; completed November 1958, by the University of Illinois.
2. Preliminary Plan for Development of the Water Resources of the Upper Big Muddy River; August 1960, staff.
3. Overall "Plan for the Development of the Upper Big Muddy River Watershed," in progress; General Planning and Resources Consultants.

Land acquisition

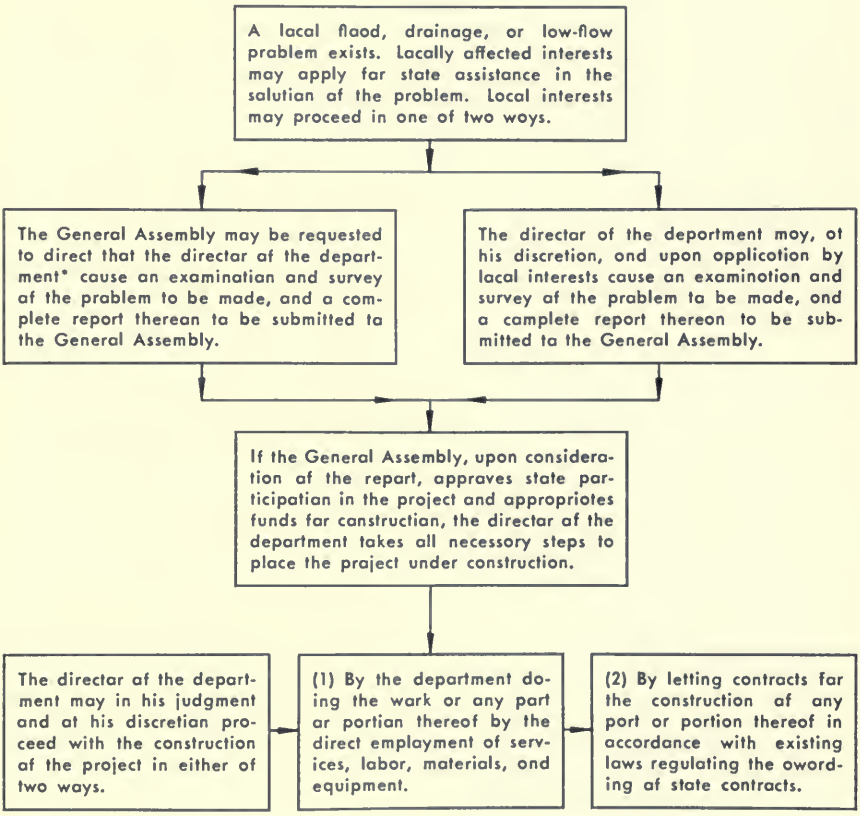
1. Selection and approval of appraisers.
2. Purchase of 5,000 acres by the Conservancy District.

APPENDIX J

STATE PROJECTS FOR:

CONSERVATION OF LOW WATER FLOWS FLOOD CONTROL UPLAND AND BOTTOMLAND DRAINAGE[1]

How they are initiated, outhorized, and completed
by the Department of Public Works ond Building



* Department as used herein refers to The Department of Public Works and Buildings.
[1] Adapted from 1959 Annual Report of the Department of Public Works and Buildings, Division of Highways.

APPENDIX K

LEASE NUMBER _____

EFFINGHAM WATER AUTHORITY LEASE [1962]

THIS LEASE made this _____ day of _____ A.D. 19___, by and between the EFFINGHAM WATER AUTHORITY, a public corporation, of the County of Effingham, State of Illinois, hereinafter called "AUTHORITY," and
hereinafter called "CUSTODIAN," WITNESSETH, that:

WHEREAS, the AUTHORITY, as a part of the public water supply project, has acquired the land for a large artificial lake which is commonly known as Lake Sara, including for its protection a surrounding zone of marginal shore land, and the leasing of the borders of such shore land will aid in protecting said lake from pollution, undue erosion and other injury, by promoting forestation, the development of other suitable vegetation and the improvement, care and maintenance of the premises:

NOW, THEREFORE, in furtherance and in aid of said public purposes, the AUTHORITY does hereby lease to CUSTODIAN that part of the said marginal land described as follows, to-wit:

Located in _____ Subdivision (or _____ area), said lot being on AUTHORITY property in Summit Township, Effingham County, State of Illinois, to have and to hold the above described premises for a period of Ninety-nine (99) years from the date of this lease, subject however, to the following terms and conditions:

Article 1. The CUSTODIAN shall pay the sum of _____ dollars ($_____) upon the execution of this lease and as rental shall pay the sum of Sixty-Dollars ($60.00) per year on said lot; the first payment to become due on the First day of January following the date of this lease; and Sixty Dollars ($60.00) each year following the year of sale, said rental payments to be made by the Custodian to the Authority during the term of the present bond issue dated August 1, 1955, which the Authority has outstanding for the construction of said Lake Sara; said rental to be paid at the Effingham State Bank, Effingbam, Illinois, or such other place as may be designated by the Authority, in either annual or semi-annual payments. When said bond issue has been retired, an annual assesment may be made by the Authority against each lot for the maintenance and administration of the area, as set forth under Assessments in the "Use Restrictions" as hereinafter set forth.

Article 2. All improvements to be made on said lot are to be located and are to be constructed in such manner as will comply with the Use Restrictions as apply to zone _____ requirements, which are hereinafter set forth, and shall further comply with the following additional subdivision restrictions:

_____

_____

If there is any question whether main or accessory building plans conform to requirements, the Custodian should request written approval from the Authority before construction is started. The location or construction of any structure which does not comply with the lease restrictions imposed herein shall be removed or altered by the Custodian so as to comply with the Authority's requirements, and upon failure of the Custodian so to do at the Authority's request, the Autbority may cause the same to be removed or altered, and the amount of expense so incurred shall be paid by the Custodian to the Authority on demand. Such dwelling house and appurtenances shall be and remain the property of the Custodian, with the right to remove the same, after tbe payment of all accrued rent and the performance of otber obligations herein on his part, leaving the ground in as good condition as the same was prior to sucb construction; and no mechanics lien or other lien shall attach to said real estate by reason hereof. No more than one dwelling house shall be on the premises at any one time.

Article 3. It is further agreed that the Custodian shall pay during the life of this lease, all taxes that may be levied against said premises for improvements thereon by the Government of the United States or tbe State of Illinois or any subdivision thereof.

Article 4. CUSTODIAN shall at all times keep said premises and structures thereof in good, sanitary condition and use all reasonable care to keep the same safe from the danger of fire, and shall without delay comply witb all of the by-laws and sanitary regulations of the Authority; and further agrees that in tbis respect, tbe Authority by its servants and agents may enter thereon and remove therefrom any and all nuisances that may, in the opinion of the Authority, be injurious to the health of the occupants of said premises or adjoining properties, and agrees to pay to the Authority all expenses for the cost incurred for such removal within ten (10) days thereafter.

Article 5. If and when a general water supply and distribution system or sewer system is installed, the Custodian shall be subject to an equitable assessment for the cost thereof, provided, however, the Custodian shall not be subject to this requirement if the area in which he is located has been provided with a common water and/or sewerage system which meets with the approval of the Authority and if the majority of the owners of lots in this area shall be opposed thereto.

The CUSTODIAN agrees to install and use on said premises such type of sanitary water closets, sinks, garbage cans and other paraphernalia for the disposal of waste as may be approved by the Authority, or the State Department of Public Health of the State of Illinois; and further agrees that he will so use and occupy said premises so that he will in no way contaminate the water of the lake.

Article 6. Power to Mortgage. Notwithstanding the provisions of Paragraphs 9 and 20 hereof and in order to promote the leasing, care and improvement of the lake shoreland, the Custodian may mortgage the leasehold hereby granted, together with all improvements of the Custodian now or hereafter on the leased premises, and the mortgagee and assigns may cause this lease and such mortgage or either of them to be filed for record in the Recorder's office of said County and enforce said mortgage and acquire title to the leasehold and such improvements in any lawful way and rent the property pending foreclosure and acquisition and disposal of title, and the mortgagee or assigns may sell and assign said leasehold and improvements to any person or persons of good reputation and character, first notifying in writing the neighboring Custodians mentioned in said Paragraph 20 of the name of the proposed purchaser or assignee and the price offered in good faith and allowing said neighboring custodians the option for ten days to substitute their nominee as purchaser at such proposed price. No default or action by the Custodian or those claiming through or under the Custodian shall be effective as against the mortgagee or the mortgagee's assigns, unless the mortgagee, or the mortgagee's assigns fail to pay, or cause to be paid, within sixty days after being served with written notice thereof, any delinquent taxes on the leasehold or improvements thereon, or sums then owing to the Authority under said lease. The mortgagee and assigns shall comply with provisions of the lease in like manner as the original Custodian is required to do in the event the mortgagee should acquire title to the leasehold. The Authority hereby waives all its rights under Paragraph 17 hereof as against any mortgagee and the assigns of the mortgagee, but shall be limited to its right under the law of eminent domain.

Article 7. This agreement is hereby expressly made subject to all the terms and conditions in an agreement hertofore entered into between the City of Effingham, Illinois and the Authority pertaining to the use of the water from said Lake. Custodian shall have the right of use of water from said Lake, when such water is for the use of the Custodian and not for sale to others.

Article 8. CUSTODIAN shall have the right to use said lake for boating, swimming and fishing, subject however, to the rules and regulations, fees and licenses of the Authority which are now or may hereafter be in full force and effect.

Article 9. CUSTODIAN shall have the right to sublet or allow other persons to occupy said premises for a period not in excess of one year, without the written consent of the Authority, however any extension of this privilege must have the approval of the Authority.

Article 10. If default be made in any of the provisions herein to be kept, observed or performed by the Custodian, and such default be not made good within sixty days after written notice thereof from the Authority, or, if the Custodian fail to vacate the premises at the expiration of the term of this lease, or if there be any transfer of this lease, or any interest therein, except in compliance with the provisions of Paragraph 20 or Paragraph 6 hereof, then and in any such case the Authority may, at its option, at once and without further demand or notice, terminate this lease and reenter and take possession of the premises and expel the Custodian and all other persons found on the premises, using such force as may be necessary without being guilty of trespass or forcible entry or detainer, or liable for any loss or damage caused thereby and all buildings and appurtenances placed on the leased premises shall at the option of the Authority become the property of the Authority in full settlement as liquidated damages sustained by the Authority by reason of such default of the Custodian. To secure the payment of the rent and performance of all other obligations of the Custodian to the Authority, the Authority shall have a lien, prior to all other liens (except mechanics liens) on all buildings and appurtenances placed on the leased premises and also all other liens and remedies given by law. And, at the Authority's option any lien in favor of the Authority may be enforced in equity or by distress, or by foreclosure sale, in like manner as chattels are sold at chattel mortgage foreclosure sale, and the Authority may bid at any such sale without obligation to account for more than the sum bid.

Article 11. In the event there is a forfeiture of this agreement, then the Custodian agrees to deliver up and surrender this lease and possession thereof, and any improvements that have been made by him on the leased premises, and such surrender shall be considered liquidated damages for the breach of this lease. In the event of such forfeiture, Custodian further agrees to execute such instrument or instruments as may be necessary to fully and completely convey to the Authority all the interest of the Custodian in and to such leased premises.

Article 12. Upon full performance of all his accrued obligations herein, the Custodian may surrender this lease and be relieved of any obligations thereafter accuring under provisions thereof.

Article 13. The Authority reserves the right of ingress and egress, over and upon the above described premises for the purpose of gaining access to the Lake in connection with the maintenance and operation thereof, and also reserves a right-of-way for public utilities, sewer and water lines, and the right to require removal of any trees, shrubbery, fences and like obstructions that may be necessary to install or maintain any public utility service, sewer or water line.

The Authority further reserves an easement of ten (10) feet extending along and parallel to telephone and electric lines along the road right-of-way, and Custodian agrees to keep such area free of trees or other obstructions which may in any way interfere with any utility line.

Article 14. The Authority shall upon demand obtain and pay for a Chicago Title and Trust Company lessee title insurance policy in the amount of $1000.00 on the above described premises.

Article 15. Custodian agrees to use the premises hereinbefore described in such manner as to comply with all Use Restrictions as hereinafter set forth, according to the zone restrictions which apply to that zone as specified for this lot in article two herein.

Article 16. USE RESTRICTIONS: Custodian agrees to comply with the following Use Restrictions as are hereinafter designated for the above described real estate zone as shown in Article two hereof.

ZONE 1—SINGLE FAMILY RESIDENCES

A. All land or lots are to be used only for single family residences and the usual accessory buildings and uses including private garages, boat piers, and swimming piers or platforms, except as provided in the following paragraph.

B. The Trustees of the Water Authority may permit land to he used for puhlic parks; golf courses, except miniature courses; boat launching areas; storage, servicing and repairing boats; small recreational areas in subdivisions; churches; public, private or parochial schools; and for other uses that may be needed to provide services to the area over which the Water Authority has ownership or control.

C. No ruhbish or dehris shall be accumulated or remain upon any lot or tract.

Lot Area and Floor Area

D. Except as provided in the following paragraphs, no residential lot shall contain an area of less than 20,000 square feet.

E. A residential lot shall have a width of not less than 100 feet at the building line.

F. No residence shall contain a gross floor area of less than 1,000 square feet. Such floor area shall he measured from the exterior of the walls of the residence, and shall he exclusive of garages, hreezeways, open and screened porches and basements, unless covered by the roof of the main dwelling.

Yards

G. No portion of a residence or other structure including a basement shall be located below the 590 contour elevation nor shall it he within 70 feet of the normal shore line (elevation 580).

H. No portion of a residence or accessory huilding shall be within 50 feet of any street serving the lot, except that on a corner lot, a residence or accessory huilding shall not be within 25 feet of the side street.

I. No residence shall be within 50 feet of any rear line, except that an accessory building may occupy not more than 25 per cent of a required yard, hut shall not be within 12 feet of any lot line.

J. No residence or accessory building shall he within 12 feet of any side lot lines.

K. Except as provided in the following paragraph, all private boat piers or docks shall be unenclosed and shall he parallel to the shore line, and these as well as swimming piers or platforms shall not extend more than 10 feet from the shore at normal water level. (Elevation 580). No portion of the pier or dock or swimming platform shall extend more than four feet above normal water level.

L. Custodians of residential lots may erect a boat house along the shore line, but only when an area is excavated for such house in a manner whereby no portion of the hoat house shall extend beyond the normal shore line (elevation 580) nor shall any project above the normal elevation of the lot on the lake side.

M. Variances in the above restrictions shall be permitted hy the Authority whenever unusual difficulties are encountered hecause of topography or other unusual conditions, and may vary the yard requirement so as to enahle a reasonable use of the property, but such variations shall not interfere with the character and value of the adjoining lots.

Wells and Septic Tanks

N. Wells to supply potable water for the residence or other use of the property shall he located only within the front yard, except on lake front lots, where the well shall be located hetween the lake and the building line paralleling same. No water shall be used from any well until it has been tested and approved by the Department of Public Health of the State of Illinois.

O. Septic tanks and tile fields for the disposal of sanitary sewerage shall he located only upon the rear of the lot. On lake front lots the septic tank and tile field shall be located between the access street and the residence. Such septic tanks and the length of the tile field shall conform to the requirements of the Health Department of Effingham County, Illinois. No residence shall be constructed without indoor toilet facilities and adequate facilities for the disposal of sewerage.

P. Whenever a system for the collection, treatment and disposal of sanitary sewerage is provided within a subdivision or portion thereof, all residences within 300 feet of such sewer line shall connect thereto within six months after the completion of the line, except as provided in Article five herein.

Miscellaneous

Q. Adjoining Custodians should be consulted before the construction of any fence or wall and if objection is filed with the Authority, then no fence or wall shall be erected, enlarged, or reconstructed until the location and plans therefor have been approved by the Authority.

R. No grading shall be done upon any residential lot nor shall any tree exceeding four inches in diameter be cut or removed until plans for the grading or removal of the tree has been approved by the Authority.

S. The Authority is authorized to enter upon any lot to cut and remove weeds, grass, and underbrush and to assess the costs therefor against the owners of the lot.

T. No residence or accessory structure shall exceed two and one-half stories or 35 feet in height at the normal ground elevation.

U. No trailer, house car, bus, or tent shall be used for residential purposes at any time.

V. No soft coal shall be used as the main source of fuel for any residence.

W. Unless a lot or tract has been leased for residential use by the Trustees of the Water Authority, no residence shall be erected unless located upon lots in a subdivision recorded in the office of the Recorder of Deeds of Effingham County.

Assessment

X. As provided in Article One, herein, the Authority may make an annual assessment against each lot in the subdivision for the purpose of maintaining roads, correcting drainage conditions, disposal of garbage or debris or for other purposes necessary to maintain desirable living conditions within the subdivisions. Such annual assessments shall not exceed an amount of $75.00 unless two-thirds of the property owners or Custodians in the subdivision shall, at an especially called meeting, approve an increase in the amount of the assessment. At least 15 days notice of such meeting shall be given to all Custodians in the subdivision.

The Authority shall mail to each Custodian, a statement of the amount of the assessment due and all assessments shall be paid within 60 days. The Authority may file a lien upon any property where the assessment has not been paid and may utilize all legal remedies to collect same.

Duration

Y. All restrictions shall remain in force for a period of 25 years and shall be automatically extended for additional periods of 10 years each, unless, prior to six months of any expiration date, 60 per cent of the Custodians in any subdivision vote to amend or change the restrictions and a proper instrument containing such changes is filed with the Recorder of Deeds of Effingham County. Provided, further, that if some unusual condition or need should arise which warrants a change or variation in the restrictions such change may be effected if approved in writing by two-thirds of all Custodians in the subdivision, and when the proper instrument is filed with the Recorder of Deeds. No amendment or change of restrictions shall be filed with the Recorder of Deeds, unless approved by the Authority.

ZONE 2—SINGLE-FAMILY RESIDENCES

The minimum restrictions in Zone 2 shall be the same as in Zone 1, except as follows:

AA. The gross floor area of any residential building shall not be less than 700 square feet.

ZONE 3—COTTAGES

The minimum restrictions in Zone 3 shall be the same as in Zone 1, except as follows:

BB. Duplexes may be constructed in Zone 3, and the gross floor area of any residential building, or each living unit thereof, shall not be less than 400 square feet.

CC. It is intended that most of the area in Zone 3, may be used for summer cottages as well as for year around residences. In considering plans for cottages or residences for summer occupancy, the Authority will be primarily concerned with structural safety and satisfactory appearance.

Article 17. RESERVED RIGHT OF AUTHORITY: Should the Authority require the leased premises to be used exclusively for any PUBLIC PURPOSE inconsistent with its occupancy by the Custodian, the Authority may terminate this lease upon giving not less than six months notice in writing of its intention so to do and paying to the Custodian a sum equal to one hundred twenty-five per cent of the amortized value at five per cent, as of the date of such termination, of all rent then remaining prepaid, plus a sum equal to one hundred twenty-five per cent of the actual cost of all improvements placed by the Custodian on the premises with the Authority's approval, less depreciation at the rate of three per cent per year on the diminishing value of such improvements.

Article 18. CUSTODIAN PREFERENCE IN AGAIN LEASING: At the expiration of this lease, Custodian, if not in default, shall be preferred by the Authority over all others in the further leasing of said premises for the purposes hereinbefore provided, subject to such ordinances and regulations, for such term, and upon payment of such rental as the Authority may then charge for said location.

Article 19. The Custodian and any person claiming any interest under this lease, shall at all times keep his or her post office address on file in the office of the Secretary of the Authority, and any notice required or permitted to be given under the terms of this lease shall be termed, for all purposes to have been given, when such notice in writing has been deposited in the United States Registered mail, postage prepaid and properly addressed to such designated address, and

the affidavit of the person of mailing such notice, together with registry receipt shall be prima facie evidence of the mailing thereof.

Article 20. Neither this lease, nor any interest therein, shall be assigned or transferred by the Custodian, or any of his legal representatives, without written consent of the Authority. Should the custodian or his legal representative desire to assign this lease or any interest therein to any person other than his immediate family, including spouses, he shall file with the Authority, the name and address of such proposed transferee with written consent to such transfer by a majority in interest of the Custodians of all tracts lying wholly or in part within 300 feet of the leased premises. If such consent is not filed, the proposed transferor shall give to the Custodian of neighboring premises, written notice of the proposed transfer, with the name and address of the proposed transferee and proposed price and file with the Authority proof of giving such notice; and such Custodians at their option, within 10 days after receipt of such notice may substitute their nominee or transferee at said specified price provided such nominee shall have legally bound himself to accept the transfer of the lease and to pay the price thereof. Or they may at their option within 10 days notify the Authority and the proposed transferer in writing of the name of a disinterested appraiser selected by a majority interest of such Custodians and also notify the Authority and the proposed transferer in writing of their intention to substitute a nominee as transferee at a fair price to be fixed by their appraiser and by two other disinterested appraisers, one to be selected by the proposed transferor, and one selected by the two appraisers so selected, and the decision of the majority of said appraisers so selected shall be conclusive and binding to the parties in interest as the price for such transfer; but if the Custodian deems the price unfair, he may abandon the transfer and retain the lease. In the event consent is not filed as hereinbefore provided, and the majority of the Custodians of the neighboring premises fail to take any action with respect to the proposed transfer, then the Custodian desiring to sell and assign his lease, may proceed to make such transfer to the person of his original choice.

In the event any of the owners of the adjoining property are under any legal disability, they may act through their legal representative. In any case, however, the transfer shall not become effective until approved in writing by the Authority, and the transferee has signed an agreement assuming the obligations of such Custodian. The provisions of this paragraph are inserted here to assist the Authority in obtaining Custodians of high character, and shall apply to each succeeding transfer.

Article 21. This lease shall be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the AUTHORITY has caused this instrument to be executed by the Chairman and Secretary, and its seal attached hereto, and the CUSTODIAN has hereunto set his hand and seal, on the day and year first above written.

EFFINGHAM WATER AUTHORITY
Effingham County, Illinois

By_____
Chairman of Board of Trustees

Attest:

By_____
Secretary

_____
CUSTODIAN

_____
CUSTODIAN

APPENDIX L

NAVIGABLE WATERWAYS WITHIN OR BORDERING ILLINOIS

The Corps of Engineers considers that the following waterways within or bordering Illinois are navigable and are within its jurisdiction to protect their navigability:[1]

Mississippi River from Illinois-Wisconsin state line to Illinois-Kentucky state line
Rock River from its mouth to Illinois-Wisconsin state line
Waukegan Harbor in its entirety

[1] Based on information supplied in letters dated Dec. 21, 1961, and Feb. 2, 1962, received from Col. E. C. Paules, Deputy Div. Eng'r, North Central Eng'r Div., Chicago; letter dated Jan. 29, 1962, received from Col. Robert W. Lockridge, Deputy Div. Eng'r, Ohio River Eng'r Div., Cincinnati; letter dated Jan. 29, 1962, received from L. B. Feagin, Chief, Construction-Operations Div., Lower Mississippi Valley Eng'r Div., Vicksburg, Mississippi; and letter dated June 28, 1962, received from Col. A. J. D'Arezzo, Dist. Eng'r, St. Louis, Mo.

Chicago River:
- Main Branch in its entirety
- North Branch and North Branch Canal from the Main Branch upstream to, but not including, the Addison Street bridge in Chicago
- South Branch in its entirety

Chicago Sanitary and Ship Canal in its entirety
Des Plaines River from its confluence with the Kankakee River upstream to and including the Elgin, Joliet and Eastern Railway bridge at mile 290.0
Illinois River in its entirety
Calumet-Sag Channel in its entirety
Little Calumet River from its junction with the Calumet-Sag Channel to the junction with the Calumet River and Grand Calumet River
Calumet River in its entirety
Lake Calumet in its entirety
Grand Calumet River from its confluence with the Calumet and Little Calumet Rivers upstream to the state line
Wabash River from the Illinois-Indiana state line to its confluence with the Ohio River
Ohio River from the mouth of the Wabash River to its confluence with the Mississippi River
Saline River from its confluence with the Ohio River to a point 5.5 miles upstream
Kaskaskia River in its entirety
Big Muddy River from its confluence with the Mississippi River upstream to Murphysboro

The U. S. Coast Guard was pursuing active boarding and law-enforcement functions on these waterways in April, 1962:

Waters within the jurisdiction of the Commander, Coast Guard Group, Chicago[1]

Cook County

Calumet River, navigable throughout
Lake Calumet, navigable throughout
Little Calumet River (Illinois and Indiana) to junction with Calumet Sag Channel, Illinois
Grand Calumet River (Illinois and Indiana) to Clark Street in Gary, Indiana
Chicago River:
- Main Branch, navigable throughout
- North Branch to Lawrence Avenue
- North Branch Canal to Chicago, Milwaukee, St. Paul and Pacific R.R. at Cherry Avenue
- South Branch, navigable throughout
- West Fork of South Branch to 1300 feet east of center line of Western Avenue
- South Fork and West Arm of South Fork to north line of 39th Street

Calumet Sag Channel, navigable throughout
Chicago Sanitary and Ship Canal, navigable throughout
Des Plaines River, navigable throughout

Lake County

Chain of Lakes (all navigable throughout via Fox River to Illinois River thence to Mississippi River):

Bluff Lake	Fox Lake	Lake Marie
Lake Catherine	Grass Lake	Petit Lake
Channel Lake	Long Lake	

[1] Based on letter dated April 16, 1962, from Lt. Comm. L. J. Hoch, Dist. Legal Officer, 9th Coast Guard Dist., Cleveland, Ohio. The Chicago office is within the jurisdiction of the 9th District office. Its jurisdiction embraces the portion of Illinois bounded on the south by 41° latitude and on the west by 90° longitude. The remainder of the state is the responsibility of the Commander, Second Coast Guard Dist., St. Louis, Mo.

La Salle County
Fox River from Chain of Lakes to Illinois River

Marshall County
Illinois River, navigable throughout

Whiteside County
Rock River, navigable throughout Illinois

Waters within the jurisdiction of the Commander, 2d Coast Guard District, St. Louis, Missouri[2]

Mississippi River Illinois River Wabash River

APPENDIX M

PERMIT FORM USED BY THE CORPS OF ENGINEERS

Department of the Army

NOTE — It is to be understood that this instrument does not give any property rights either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to private property or invasion of private rights, or any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining *State assent* to the work authorized. IT MERELY EXPRESSES THE ASSENT OF THE FEDERAL GOVERNMENT SO FAR AS CONCERNS THE PUBLIC RIGHTS OF NAVIGATION. (See *Cummings v. Chicago,* 188 U.S., 410.)

PERMIT

Corps of Engineers.
_____, 19__

Referring to written request dated
I have to inform you that, upon the recommendation of the Chief of Engineers, and under the provisions of Section 10 of the Act of Congress approved March 3, 1899, entitled "An act making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes," you are hereby authorized by the Secretary of the Army

to (Here describe the proposed structure or work.)

in (Here to be named the river, harbor, or waterway concerned.)

at

(Here to be named the nearest well-known locality — preferably a town or city — and the distance in miles and tenths from some definite point to the same, stating whether above or below or giving direction by points of compass.)

in accordance with the plans shown on the drawing attached hereto
(Or drawings; give file number or other definite identification marks.)

subject to the following conditions:

(a) That the work shall be subject to the supervision and approval of the District Engineer, Corps of Engineers, in charge of the locality, who may temporarily suspend the work at any time, if in his judgment the interests of navigation so require.

(b) That any material dredged in the prosecution of the work herein authorized shall be removed evenly and no large refuse piles, ridges across the bed of the waterway, or deep holes that may have a tendency to cause injury to navigable channels or to the banks of the waterway shall be left. If any pipe, wire, or cable

[2] Based on letter dated April 24, 1962, from Lt. Phillip B. Moberg, Dist. Legal Officer, 2d Coast Guard Dist., St. Louis.

hereby authorized is laid in a trench, the formation of permanent ridges across the bed of the waterway shall be avoided and the back filling shall be so done as not to increase the cost of future dredging for navigation. Any material to be deposited or dumped under this authorization, either in the waterway or on shore above high-water mark, shall be deposited or dumped at the locality shown on the drawing hereto attached, and, if so prescribed thereon, within or behind a good and substantial bulkhead or bulkheads, such as will prevent escape of the material in the waterway. If the material is to be deposited in the harbor of New York, or in its adjacent or tributary waters, or in Long Island Sound, a permit therefor must be previously obtained from the Supervisor of New York Harbor, New York City.

(c) That there shall be no unreasonable interference with navigation by the work herein authorized.

(d) That if inspections or any other operations by the United States are necessary in the interest of navigation, all expenses connected therewith shall be borne by the permittee.

(e) That no attempt shall be made by the permittee or the owner to forbid the full and free use by the public of all navigable waters at or adjacent to the work or structure.

(f) That if future operations by the United States require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army, it shall cause unreasonable obstruction to the free navigation of said water, the owner will be required upon due notice from the Secretary of the Army, to remove or alter the structural work or obstructions caused thereby without expense to the United States, so as to render navigation reasonably free, easy, and unobstructed; and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners shall, without expense to the United States, and to such extent and in such time and manner as the Secretary of the Army may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable capacity of the watercourse. No claim shall be made against the United States on account of any such removal or alteration.

(g) That the United States shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the Government for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

(h) That if the display of lights and signals on any work hereby authorized is not otherwise provided for by law, such lights and signals as may be prescribed by the U. S. Coast Guard, shall be installed and maintained by and at the expense of the owner.

(i) That the permittee shall notify the said district engineer at what time the work will be commenced, and as far in advance of the time of commencement as the said district engineer may specify, and shall also notify him promptly, in writing, of the commencement of work, suspension of work, if for a period of more than one week, resumption of work, and its completion.

(j) That if the structure or work herein authorized is not completed on or before _____ day of _____, 19___, this permit, if not previously revoked or specifically extended, shall cease and be null and void.

By authority of the Secretary of the Army:

APPENDIX N

P. L. 566 — WATERSHED APPLICATIONS, STATE OF ILLINOIS, November 1, 1963

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Honey Creek	Henderson Warren	36,256	Henderson Co. S. & W. Cons. Dist.	3/55	7/55		Flood prevention	Planning terminated
Tiskilwa	Bureau	3,300	Bureau Co. S. & W. Cons. Dist. Village of Tiskilwa	6/55	7/55	7/56	Flood prevention	Project completed
Robinson Creek	Shelby	77,000	Shelby Co. S. & W. Cons. Dist.	5/56	6/56		Flood prevention Drainage	Planning suspended
Crawfish Creek	Wabash	23,000	Wabash Co. S. & W. Cons. Dist.	5/56	6/56		Flood prevention Drainage	Planning terminated
Big Creek	Edwards Wayne	23,000	Edward Co. S. & W. Cons. Dist. Wayne Co. S. & W. Cons. Dist.	6/56	6/56		Flood prevention Drainage	Planning terminated
Hambaugh-Martin	Brown	8,601	Brown Co. S. & W. Cons. Dist. McKee Creek Levee & Drain Dist.	1/58	2/58	7/58	Sediment control	Project completed
Richland Creek	St. Clair	25,700	City of Belleville St. Clair S. & W. Cons. Dist.	11/57	4/58		Flood prevention	
Shoal Creek	Montgomery	192,365	Montgomery Co. S. & W. Cons. Dist. City of Litchfield City of Hillsboro Shoal Creek Drainage Dist.	3/58	4/58	7/59	Flood prevention Water supply	Under construction
Big Blue Creek	Pike	26,690	Pike Co. S. & W. Cons. Dist. City of Pittsfield	7/58	10/58	6/59	Flood prevention Water supply	Project completed

APPENDIX N — Continued

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Hog River-Pig Creek	St. Clair	3,250	St. Clair Co. S. & W. Cons. Dist. Mascoutah Surface Water Protection District City of Mascoutah	11/58	4/60	7/61	Flood prevention	Under construction
Curts Creek	Henderson	3,040	Henderson Co. S. & W. Cons. Dist.	11/58	5/63		Flood prevention	Planning terminated
Valley City	Pike	5,994	Valley City Drainage & Levee Dist. Pike Co. S. & W. Cons. Dist.	4/59	6/59		Sediment and flood-water damage reduction	Planning terminated
Brownsville Creek	Alexander	9,805	Pulaski-Alexander Co. S. & W. Cons. Dist.	5/59	9/59		Flood prevention Erosion-damage reduction	Planning suspended
Seven Mile Creek	Jefferson	18,460	Jefferson Co. S. & W. Cons. Dist. City of Mt. Vernon	5/59	7/59	6/61	Flood prevention Gully stabilization Water supply	
Stillman Creek	Ogle	40,176	Ogle Co. S. & W. Cons. Dist.	7/59	1/60		Flood prevention	Planning terminated
Medina	Peoria	12,200	Peoria Co. S. & W. Cons. Dist.	7/59	12/59		Flood prevention Stabilization	Planning suspended
Hallock	Peoria	14,000	Peoria Co. S. & W. Cons. Dist.	7/59	12/59		Flood prevention Stabilization	

APPENDIX N — Continued

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Scattering Fork	Douglas, Champaign Coles	73,000	Union Drainage Dist. #20, Town of Tuscola Hayes Br. Drain. Dist. & Sub-Dist. #2 Scattering Fork Drain. Dist. Drain. Dist. #1, Town of Arcola Drain. Dist. #4, Town of Arcola Drain. Dist. #4, Town of Tuscola Cons. Drain. Dist. #5, Town of Tuscola Tarbox Sub-Drain. Dist., Drain. Dist. #1, Town of Arcola Union Drain. Dist. #3, Towns of Arcola and Tuscola Hackett Branch Drain. Dist. (if organized) Champaign Co. S. & W. Cons. Dist. Coles Co. S. & W. Cons. Dist. Douglas Co. S. & W. Cons. Dist.	7/59	4/60	7/62	Flood prevention Drainage	
Little Cache Creek	Johnson	45,935	Johnson Co. S. & W. Cons. Dist. Vienna Drainage Dist.	5/60	4/62		Flood prevention	Awaiting congressional approval

APPENDIX N — Continued

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Auxier-Big Creek	Hamilton Jefferson Wayne White	138,240	Hamilton Co. S. & W. Cons. Dist. Haw Creek Drainage Dist.	10/60			Flood prevention Drainage	
Bay Creek	Pope Johnson	118,769	Pope-Hardin S. & W. Cons. Dist. Johnson Co. S. & W. Cons. Dist.	10/60			Flood prevention	
Silver Lake	Madison Bond	40,090	Madison Co. S. & W. Cons. Dist. Bond Co. S. & W. Cons. Dist. City of Highland	12/60			Flood prevention Stabilization	Planning suspended
Coal & Crane Creek	Schuyler	40,200	Schuyler Co. S. & W. Cons. Dist. Coal Creek Drain. & Levee Dist. Crane Creek Drain. & Levee Dist.	7/61	1/63		Flood prevention Municipal water supply Recreation	
Clear Creek	Cass	26,000	Cass Co. S. & W. Cons. Dist. Clear Creek Drain. & Levee Dist.	8/61			Flood prevention Erosion control	
Upper Embarrass River	Champaign Douglas Edgar Vermilion Coles	233,900	Champaign Co. S. & W. Cons. Dist. Douglas Co. S. & W. Cons. Dist. Edgar Co. S. & W. Cons. Dist.	8/61			Flood prevention Drainage	

APPENDIX N — Continued

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
			Vermilion Co. S. & W. Cons. Dist. Coles Co. S. & W. Cons. Dist. City of Villa Grove Endorsed by 4 other towns and villages, 4 Co. Boards of Sup., and 3 other organizations					
Seven Mile Creek	White	23,600	White Co. S. & W. Cons. Dist. City of Enfield 7 Mile Creek Basin Cons. Dist.	9/61	5/63		Flood prevention Drainage Recreation	
Hurricane Creek	Greene Scott	47,800	Greene Co. S. & W. Cons. Dist. Hillview Drain. & Levee Dist. Hartwell Drain. & Levee Dist. Village of Hillview	9/61			Flood prevention Erosion control	
Four Mile Creek	Wayne Jefferson	25,600	Wayne Co. S. & W. Cons. Dist.	8/62			Flood prevention Drainage	
Hager's Slough	Cass	12,684	Cass Co. S. & W. Cons. Dist. Hager's Slough Drain. Dist.	8/62			Flood prevention Erosion control	

APPENDIX N — Continued

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Sugar Creek	Jersey	4,200	Jersey Co. S. & W. Cons. Dist. Board of Trustees, Village of Fieldon Endorsed by: Jersey Co. Area Redevelopment Committee	11/62			Gully stabilization Water supply Recreation Flood control	
Lost Creek	White Hamilton	23,500	White Co. S. & W. Cons. Dist. Hamilton Co. S. & W. Cons. Dist.	12/62			Flood prevention Improve drainage	
Mill Creek	Clark Edgar	80,000	Clark Co. S. & W. Cons. Dist. Edgar Co. S. & W. Cons. Dist.	3/63			Flood prevention Erosion control	
Flat Branch	Coles	27,580	Coles Co. S. & W. Cons. Dist. Mutual Drain. Dist. #2 of Humboldt Drain. Dist. #3 of Humboldt Drain. Dist. #5 of Humboldt Drain. Dist. #4 of Humboldt Union Drain. Dist. #2 of Seven Hickory and Humboldt	3/63			Flood prevention Improve drainage	
Little Creek	Union Pulaski	11,840	Pulaski-Alexander S. & W. Cons. Dist. Union Co. S. & W. Cons. Dist. Village of Dongola	3/63	9/63		Flood prevention Water supply	

APPENDIX N — Concluded

Name of watershed	County or counties	Acres	Sponsors	Date approved by governor	Date authorized for planning	Date approved for operation	Purpose	Remarks
Schaad Ditch	Cass	9,900	Cass Co. S. & W. Cons. Dist. Clear Lake Special Drain. Dist.	8/63			Improve drainage Sediment control	
Pond Creek	Wayne White	35,000	Wayne Co. S. & W. Cons. Dist. Leech & Grover Drain. Dist. #1 Fairfield Park Dist.	8/63			Flood prevention	
McKee Creek Middle and South Fork	Brown Pike	56,960	Brown Co. S. & W. Cons. Dist. Pike Co. S. & W. Cons. Dist.	8/63			Flood prevention Erosion control Water supply	
McKee Creek North Fork	Adams Brown Pike	213,765	Adams Co. S. & W. Cons. Dist. Brown Co. S. & W. Cons. Dist. Pike Co. S. & W. Cons. Dist.	8/63			Flood prevention Erosion control Water supply	
Upper Cache River	Pulaski Massac Pope Johnson Union	198,883	Pulaski-Alexander S. & W. Cons. Dist. Massac Co. S. & W. Cons. Dist. Pope-Hardin S. & W. Cons. Dist. Johnson Co. S. & W. Cons. Dist. Union Co. S. & W. Cons. Dist. Cache River Drainage Dist.	8/63			Flood prevention Water supply Recreation Improve lateral drainage	

APPENDIX O

CONFERENCES HELD UNDER FEDERAL WATER POLLUTION CONTROL ACT INVOLVING ILLINOIS[1]

Mississippi River — St. Louis, Missouri, Metropolitan Area (Illinois-Missouri), status as of October 27, 1961

Municipal and industrial wastes discharged into the Mississippi River from the St. Louis Metropolitan Area, which includes communities in Missouri and Illinois, have caused deterioration of the quality of the river's water, so as to interfere with its use as a source of public water supply, for recreation, scenic values, pleasure boating, sport fishing, navigation, and commercial fishing in both Missouri and Illinois.

The Public Health Service held a conference on March 4, 1958, at St. Louis. The conferees agreed on a time schedule for remedial action to control pollution from cities, political subdivisions, institutions, and industries on both the Missouri and Illinois sides of the Mississippi River.

St. Louis has ceased dumping its garbage into the Mississippi River and is now incinerating all such wastes. Modifications in the Meramec River Watershed were completed in 1960, and bond issues to finance sewage improvements on the Coldwater Creek and Gravois Creek watersheds have been passed. Construction of the Coldwater Creek facility was delayed by litigation attacking the legality of the bond issue. The suit was dismissed by a Missouri State Circuit Court but is being appealed to the Missouri State Supreme Court. Engineering reports covering financing and treatment of all sewage and industrial waste from the Mississippi River Watershed have been approved by the Missouri Water Pollution Board. An Industrial Waste Ordinance is being prepared by the St. Louis Metropolitan Sewer District in cooperation with industry.

St. Genevieve, Missouri, placed treatment works in operation during March, 1961. Bonne Terre, Missouri, has treatment facilities under construction, and Festus and Cape Girardeau have held successful bond elections.

Treatment plants and facilities have been constructed by Roxana, Hartford, Dupo, and Columbia, Illinois, and by the Shell, Sinclair, and Standard Oil companies and the International Shoe Company. Alton, Illinois, has commenced construction of an interceptor sewer and has scheduled treatment plant construction, with completion due in December, 1962. Wood River, Illinois, began constructing treatment facilities during September, 1961. Chester, Illinois, completed financing in September, 1961, and planned to begin construction in June, 1962.

The Illinois communities of Cahokia, East Alton, Granite City, Monsanto, and Venice, and the East Side Levee and Sanitary District have not completed arrangements for financing; nor have the Alton Box Board Company, the Olin-Mathieson Company, and the Monsanto Chemical Company on the Illinois side of the river commenced construction of treatment facilities. The conference schedule called for such financing and the commencement of such construction by 1959.

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[1] Information received from Murray Stein, Chief, Enforcement Branch, Div. of Water Supply and Pollution Control, Public Health Service, Dept. of Health, Education, and Welfare, with letter dated June 29, 1962.

Mississippi River — Clinton Area (Iowa-Illinois), status as of May 2, 1962

On the basis of reports, surveys, and studies, the Secretary of Health, Education, and Welfare called a conference about pollution of the interstate waters of the Mississippi River (Illinois-Iowa) between Lock and Dam 13 and Lock and Dam 15 (Clinton, Iowa, area), on March 8, 1962, at Clinton, Iowa.

The conferees concluded, with the reservation of the conferee from Illinois, that discharges causing and contributing to interstate pollution come from various industrial and municipal sources, and that such pollution interferes with water uses for public and industrial water supplies, commercial and sport fishing, recreation purposes, and the aesthetic and passive enjoyment of the river in the Clinton-Quad Cities area.

The conferees found the orders issued by the Iowa Department of Health for abatement and control of pollution to be reasonable and fair and adopted the schedules presented to them by the Iowa conferee. Under the schedule, all contracts for the construction of treatment facilities will be awarded on or before October 1, 1965. The conferees agreed that Illinois would adopt a commensurate corrective treatment program.

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